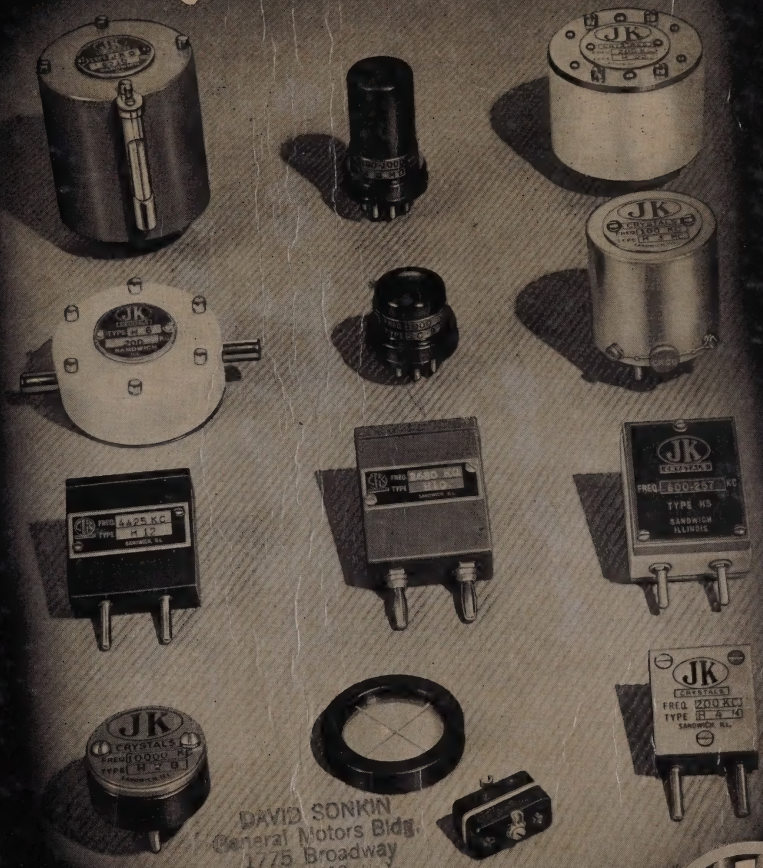
Crystals FOR THE CRITICAL



DAVID SONKIN
General Motors Bldg.
1775 Broadway
New York 19,
Tel. Circle 7-6946

The **JAMES KNIGHTS** Co.

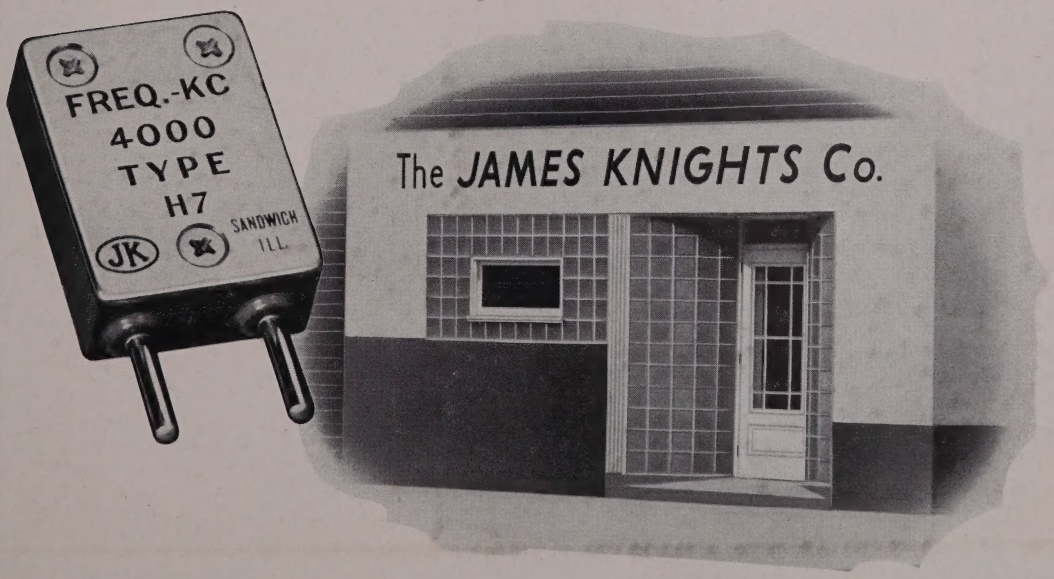
SANDWICH, ILLINOIS

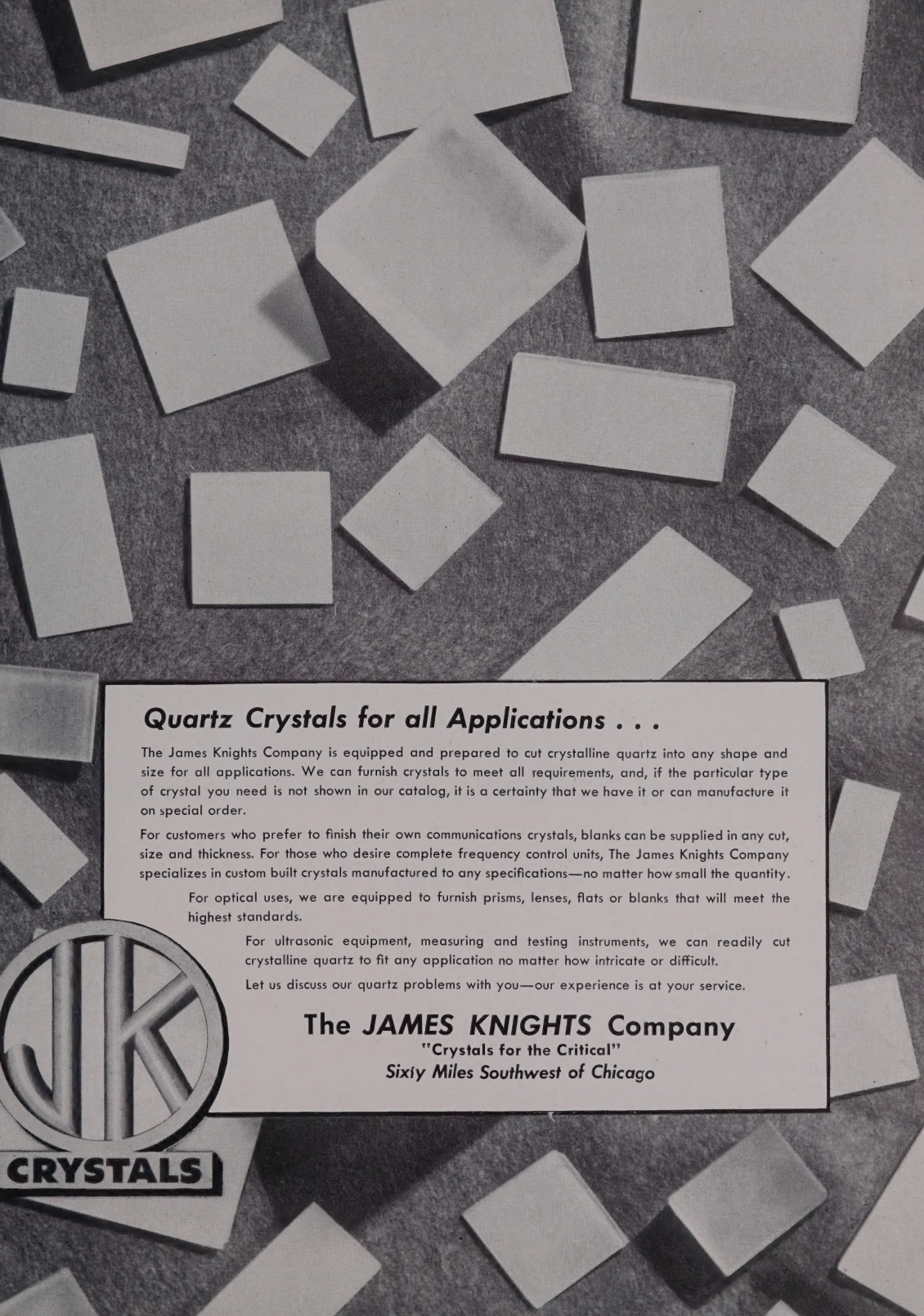
Sixty Miles Southwest of Chicago

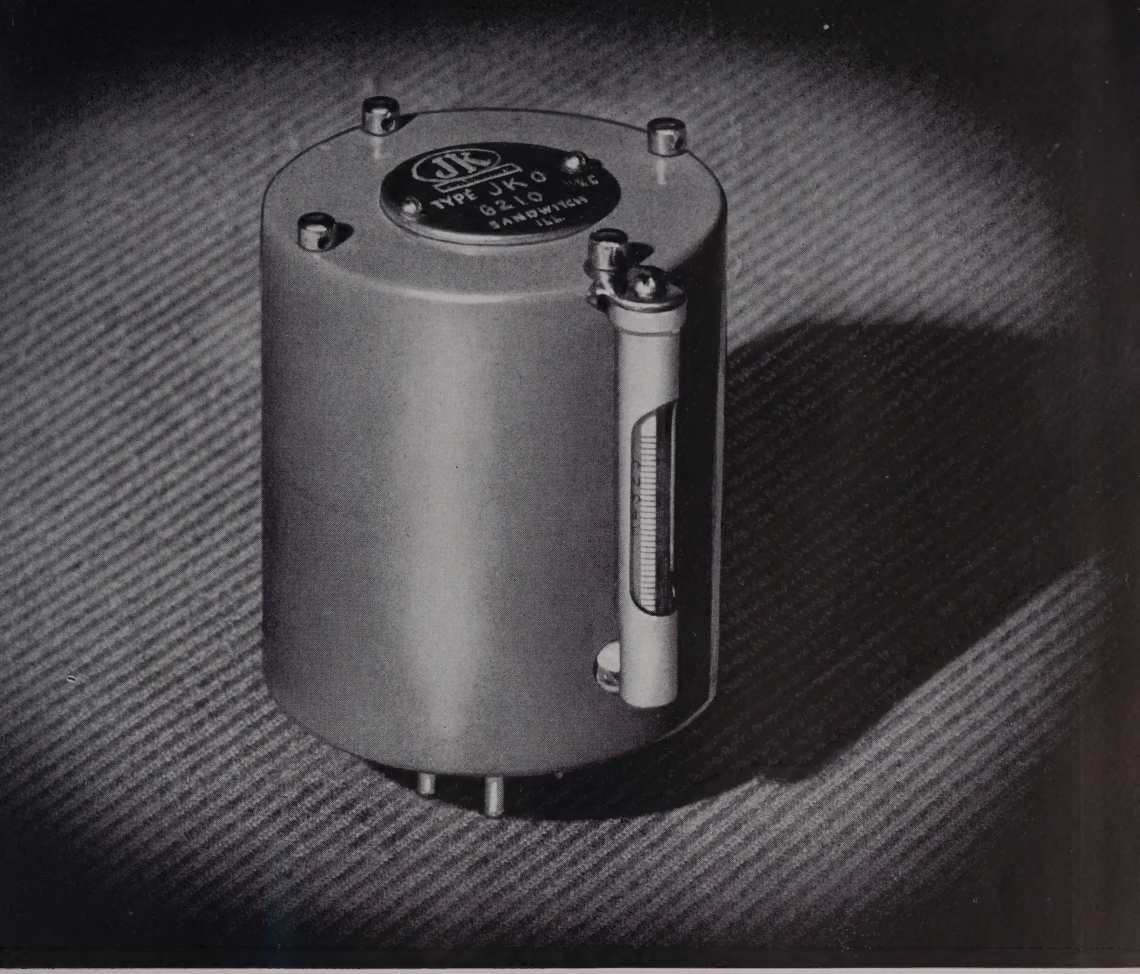
JK CRYSTALS

Crystals for the Critical

The men of The James Knights Company have been designing and making precision crystals since 1932. Their extensive experience with crystals for every conceivable purpose is coupled with an active background in Radio dating back to 1913. As engineers, physicists and operators from American, foreign and U. S. Government technical schools, they have consistently contributed history making graphs, inventions and methods to the crystal industry in general and to James Knights Crystals in particular. The engineers of The James Knights Company pioneered in the development of X-ray orientation, the vacuum tube type of holder and in various precision cuts and scientific improvements now accepted as standard. Equipment to speed up crystal manufacturing processes, increase accuracy and to make production as automatic as possible has been developed and built by The James Knights Company for the crystal industry. With such a practical achievement background, it is understandable that James Knights Crystals meet and satisfy the most intricate specifications.




Quartz Crystals for all Applications . . .
The James Knights Company is equipped and prepared to cut crystalline quartz into any shape and size for all applications. We can furnish crystals to meet all requirements, and, if the particular type of crystal you need is not shown in our catalog, it is a certainty that we have it or can manufacture it on special order.
For customers who prefer to finish their own communications crystals, blanks can be supplied in any cut, size and thickness. For those who desire complete frequency control units, The James Knights Company specializes in custom built crystals manufactured to any specifications—no matter how small the quantity.
For optical uses, we are equipped to furnish prisms, lenses, flats or blanks that will meet the highest standards.
For ultrasonic equipment, measuring and testing instruments, we can readily cut crystalline quartz to fit any application no matter how intricate or difficult.
Let us discuss our quartz problems with you—our experience is at your service.
The JAMES KNIGHTS Company
"Crystals for the Critical"
Sixty Miles Southwest of Chicago
JK
CRYSTALS



Type JKO

Frequency range . . . . . 80 KC to 7500 KC
Frequency tolerance . . . . . Exact or .01%
Frequency drift . . . . . To Customer's Specifications
Holder . . . . . Phenolic Material
Heater voltage . . . . . 6.3 Volts or to Customer's Specifications

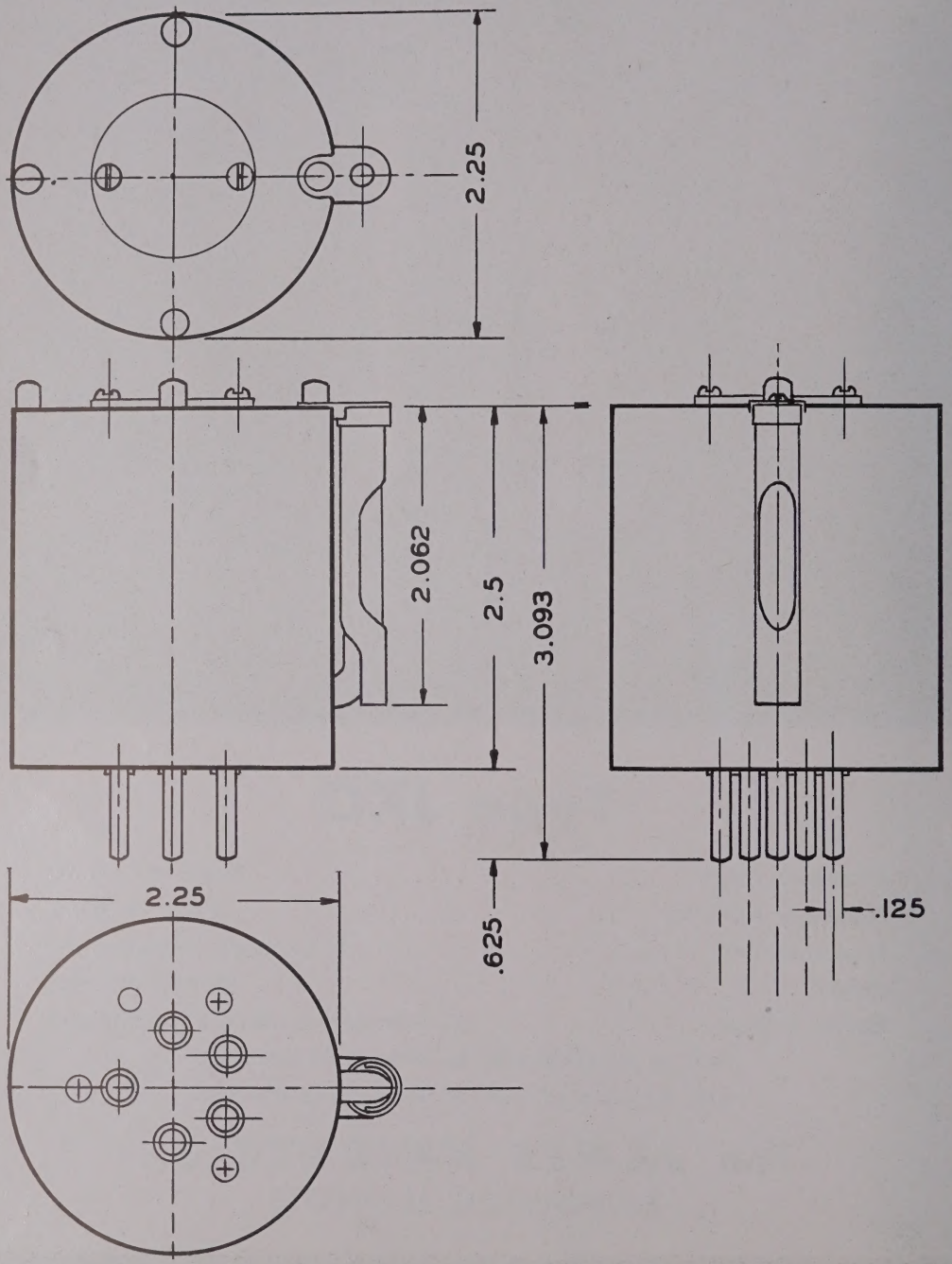
Can be supplied with or without thermometer.
Can be supplied with or without side terminal.

The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type JKO



Type H2

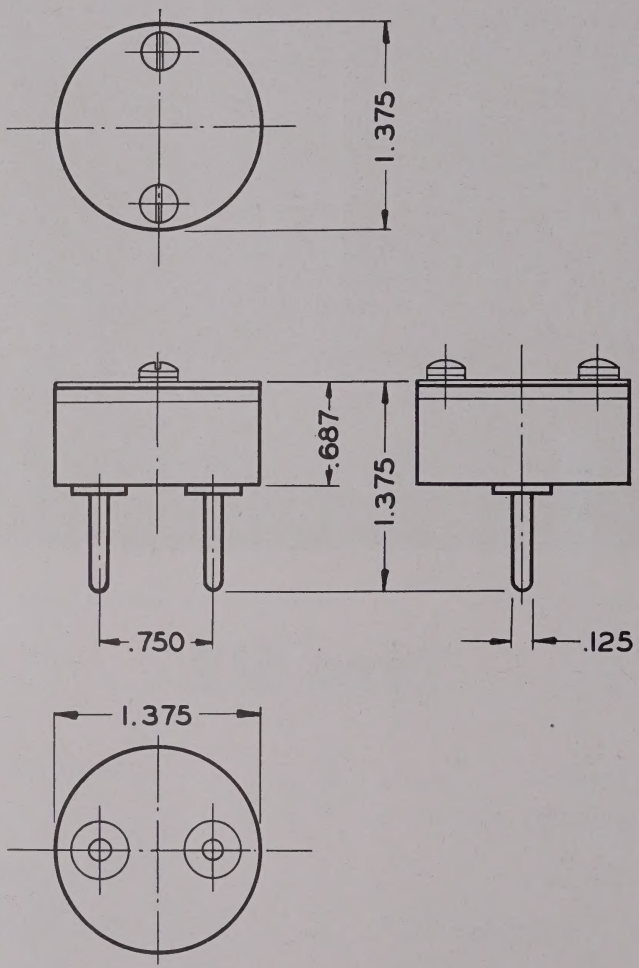
Frequency Range	200 KC to 12000 KC
Frequency Tolerance Max.	.01%
Frequency Drift Max.	2 PPM per Degree Cent.
Holders . . . . Phenolic Material	Waterproof Assembly

The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type H2



Types H3 — H3S

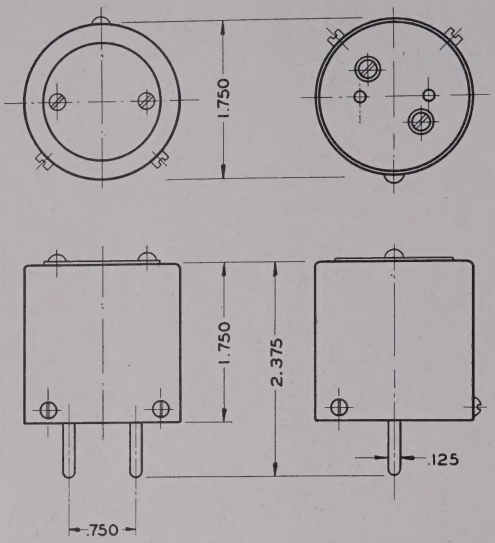
Frequency Range	70 KC to 150 KC
Frequency Tolerance	Exact
Frequency Drift Max.	2 PPM per Degree Cent.
Holders	Phenolic Material with Metal Cover

The *JAMES KNIGHTS* Co.

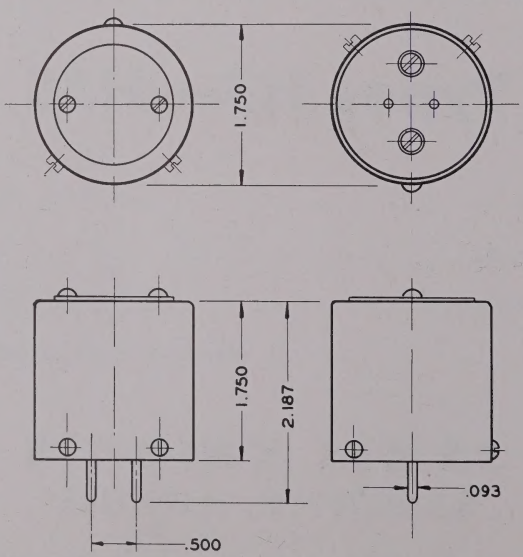
SANDWICH, ILLINOIS

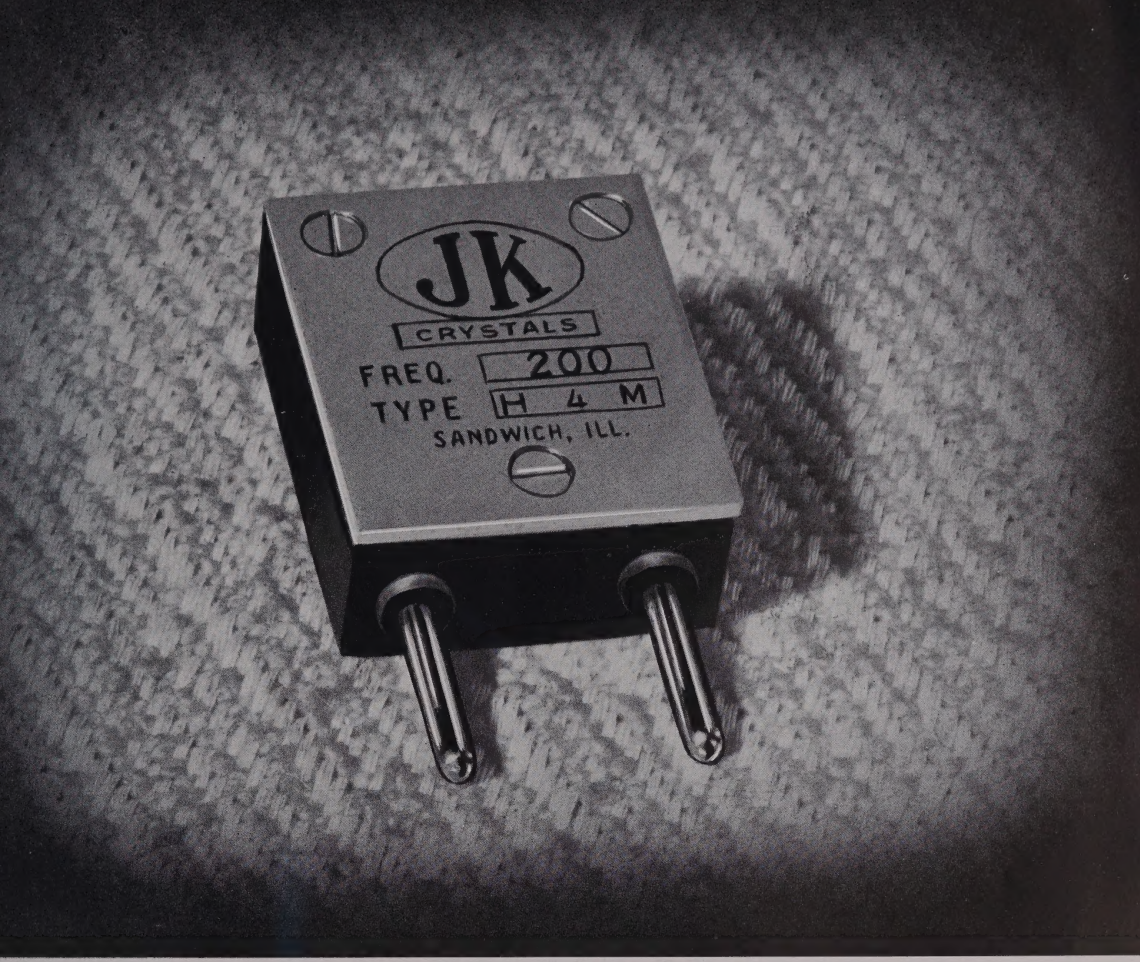
CRYSTALS FOR THE CRITICAL

Type H3



Type H3S





Type H4

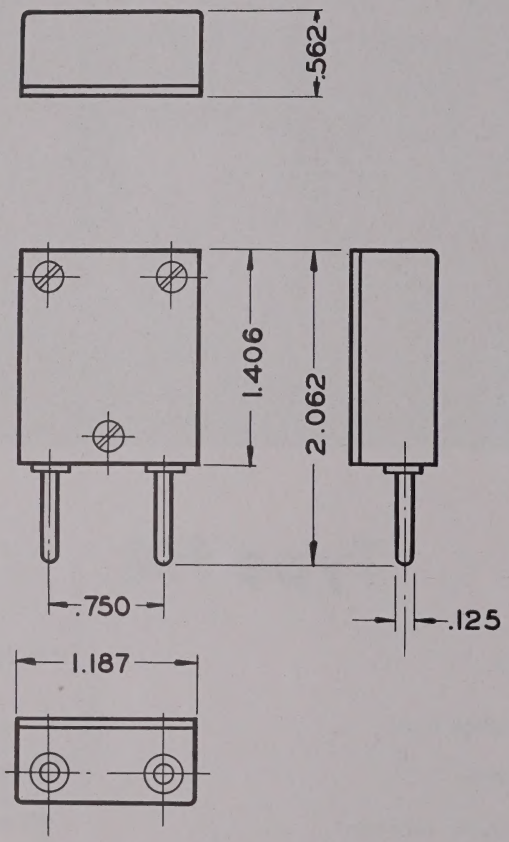
Frequency Range	150 KC to 12000 KC
Frequency Tolerance Max.	.01%
Frequency Drift Max.	2 PPM per Degree Cent.
Holder	Phenolic Material — Waterproof Assembly

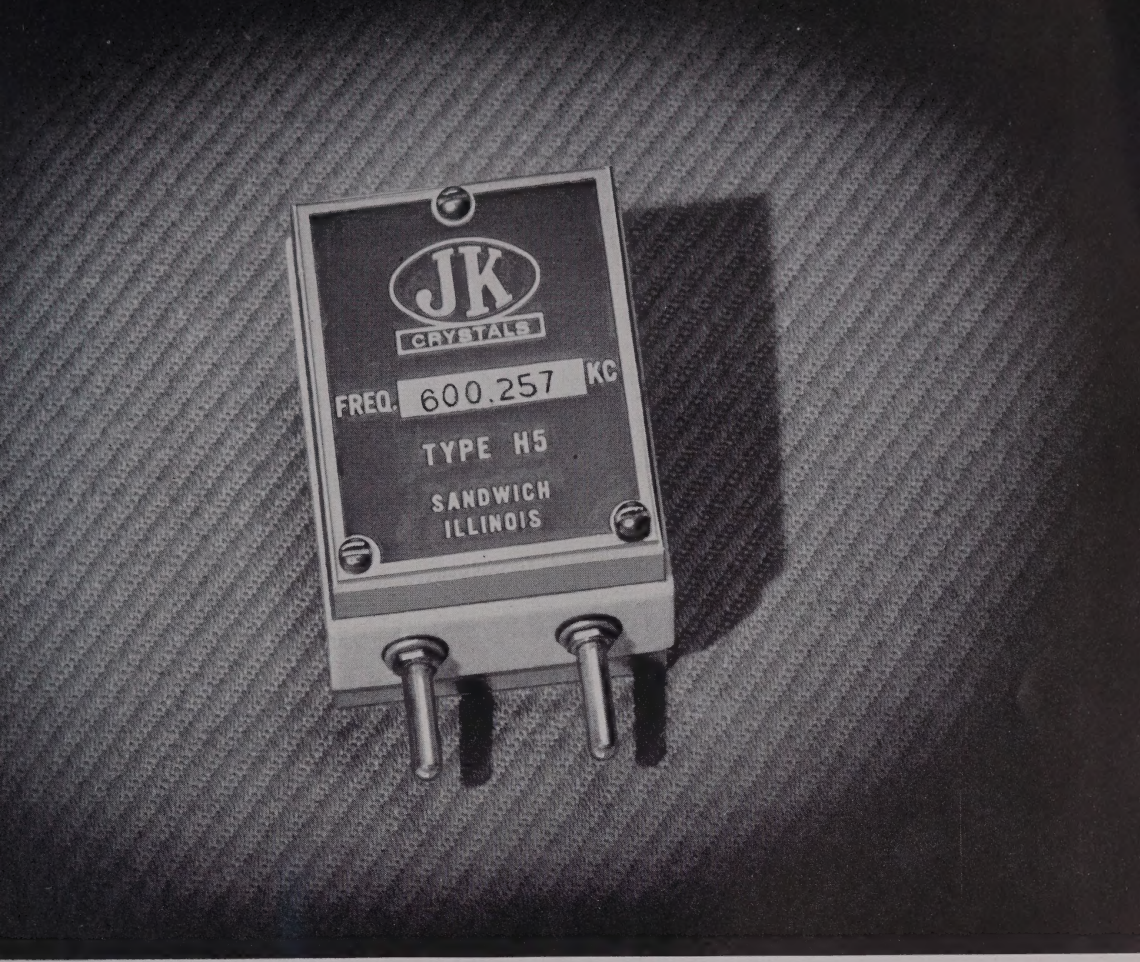
The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type H4





Type H5

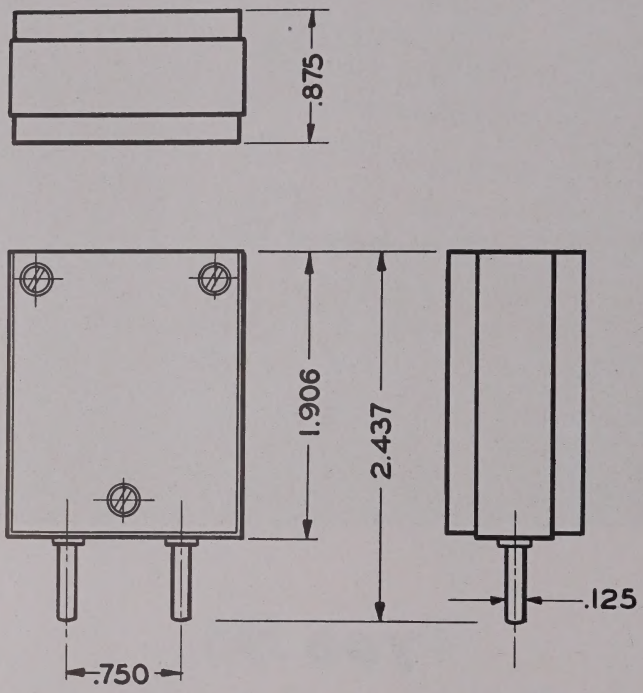
Frequency Range	100 KC to 12000 KC
Frequency Tolerance	Exact
Frequency Drift Max.	2 PPM per Degree Cent.
Holder	Ceramic — Air Gap Electrode Adjustment

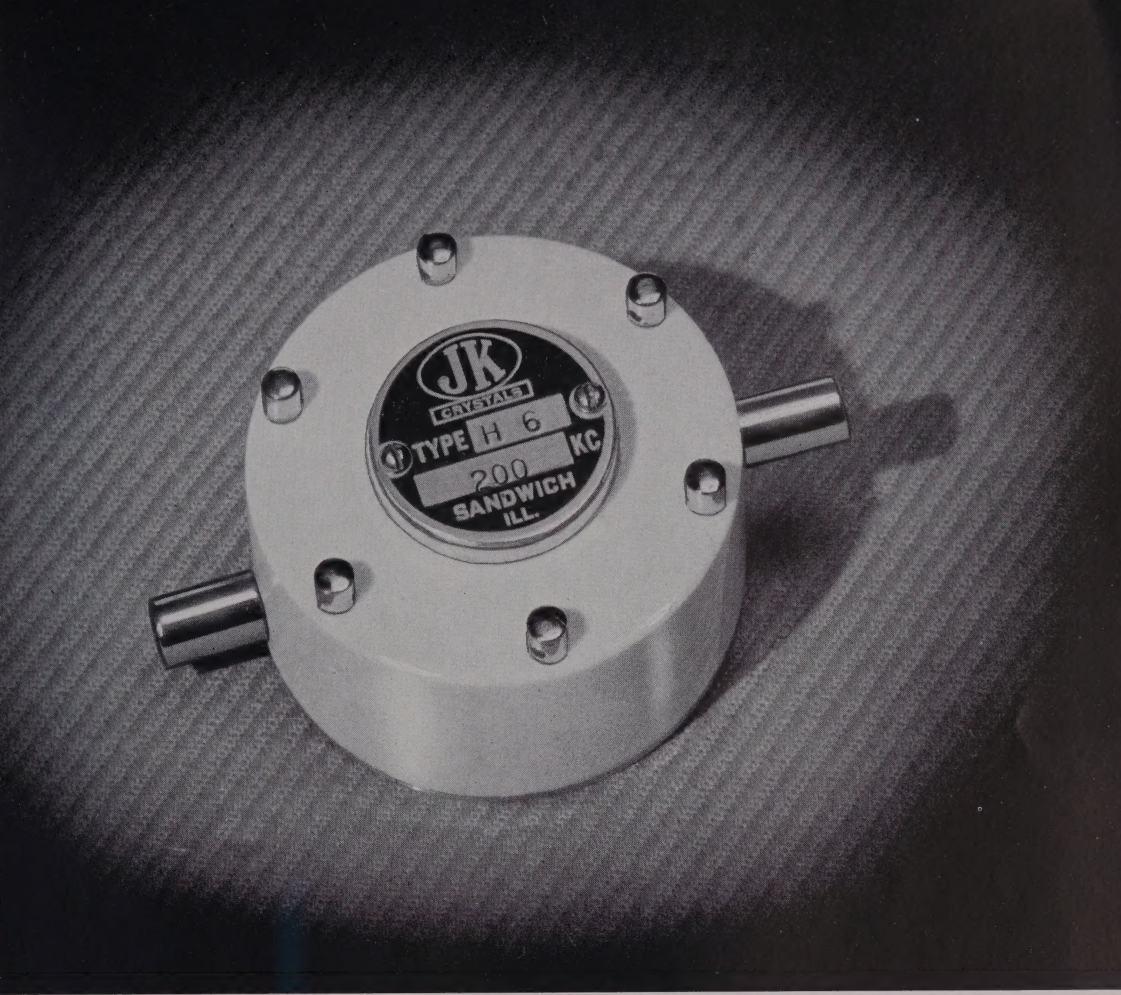
The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type H5





Type H6

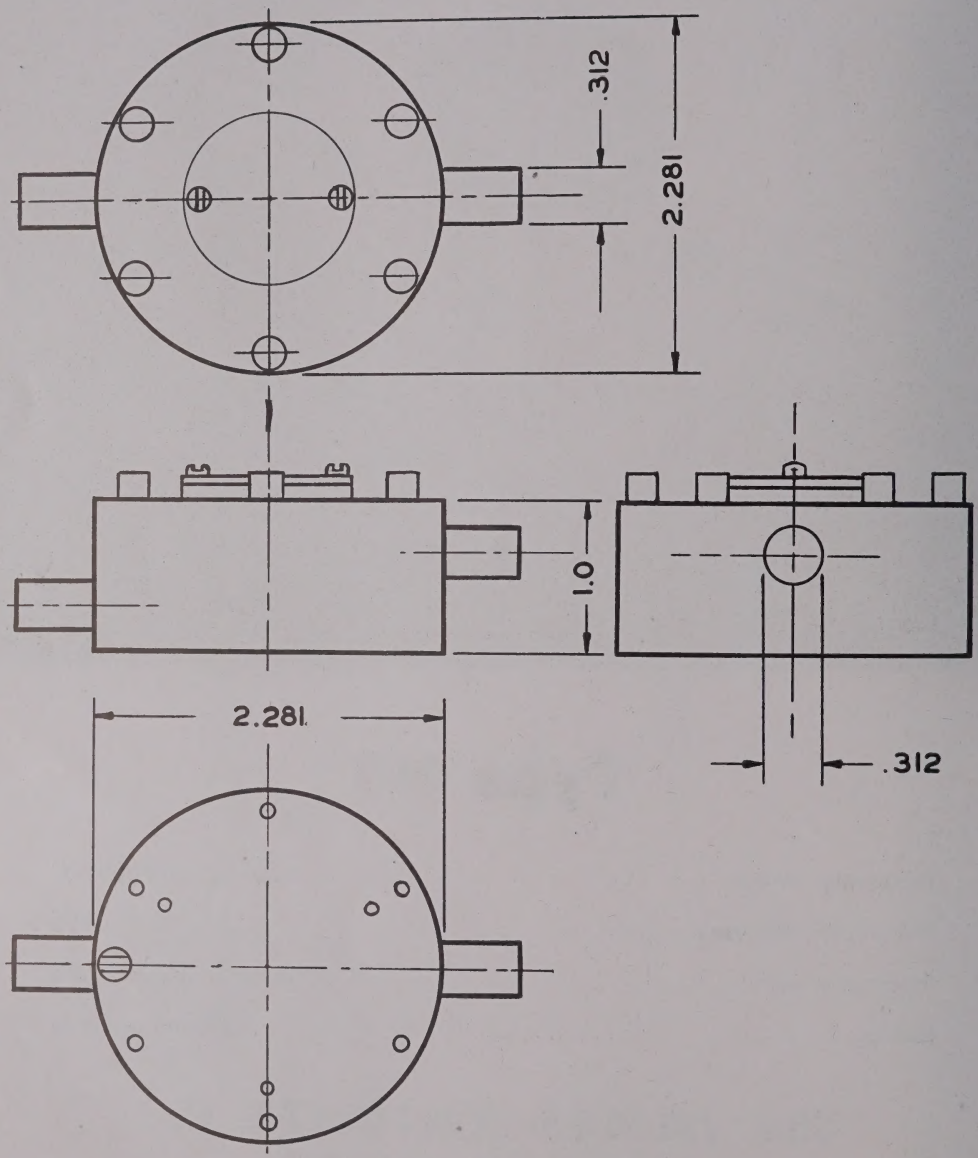
Frequency range	100 KC to 8000 KC
Frequency tolerance	Exact or .01%
Frequency drift	To Customer's Specifications
Holder	Ceramic material

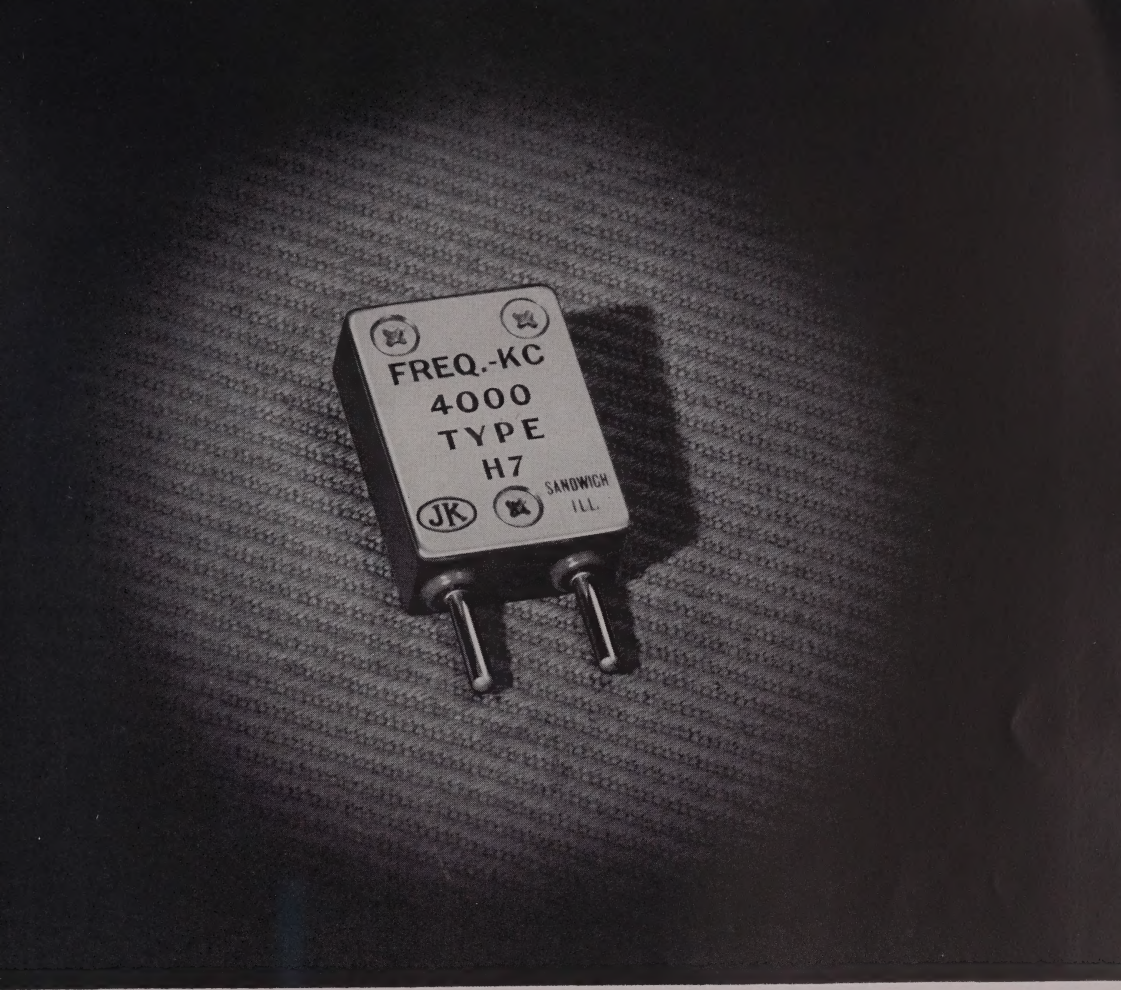
The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type H6





Type H7

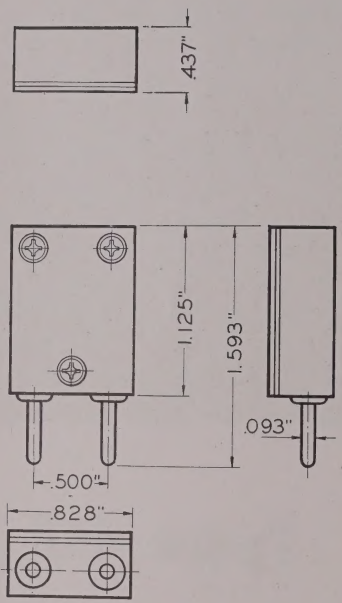
Frequency Range	2000 KC to 10000 KC
Frequency Tolerance Max.	.01%
Frequency Drift Max.	2 PPM per Degree Cent.
Holder	Phenolic Material — Waterproof Assembly

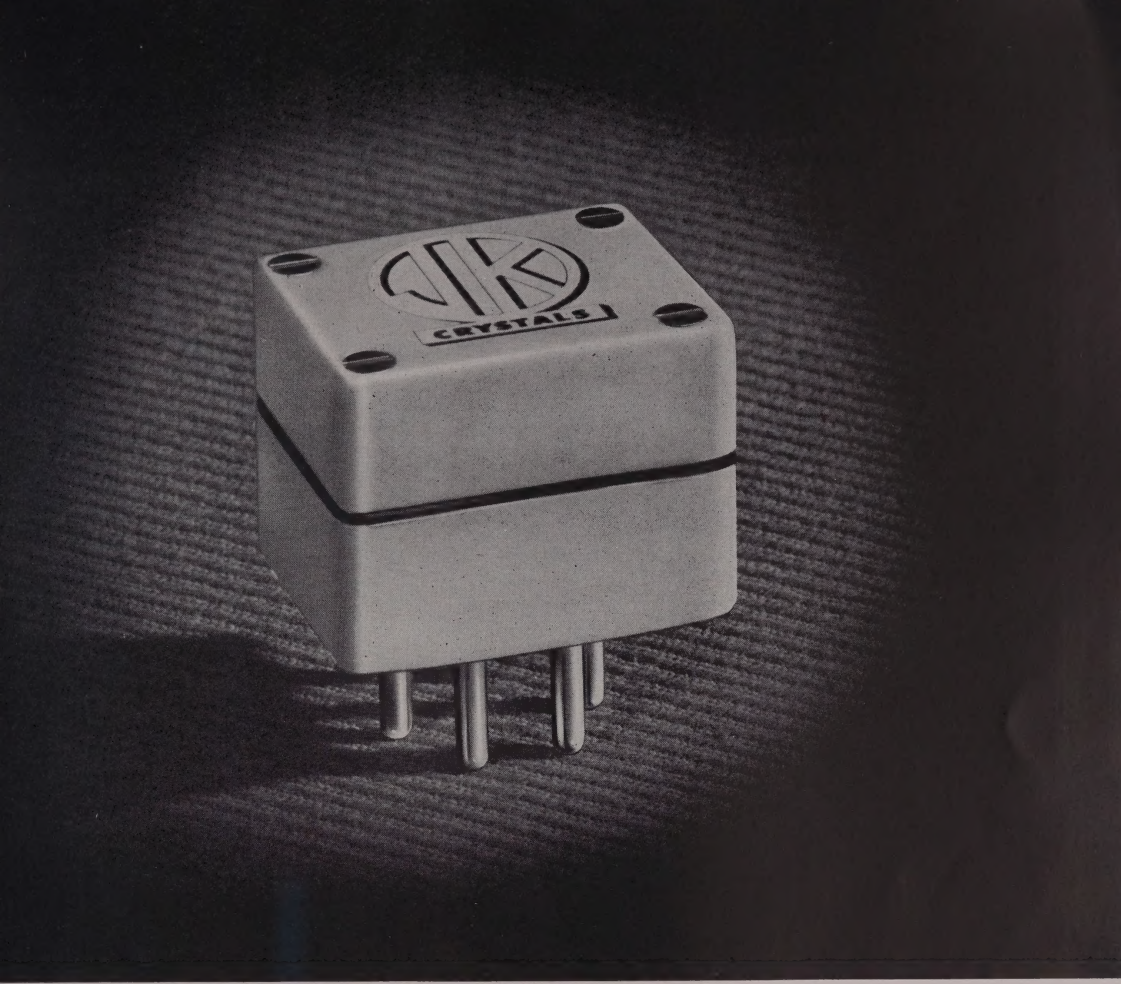
The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type H7





Type H9

Frequency Range ..... 2000 KC to 10000 KC

Frequency Tolerance Max..... .01%

Frequency Drift Max..... 2 PPM per Degree Cent.

Holder.....Ceramic.....Waterproof Assembly

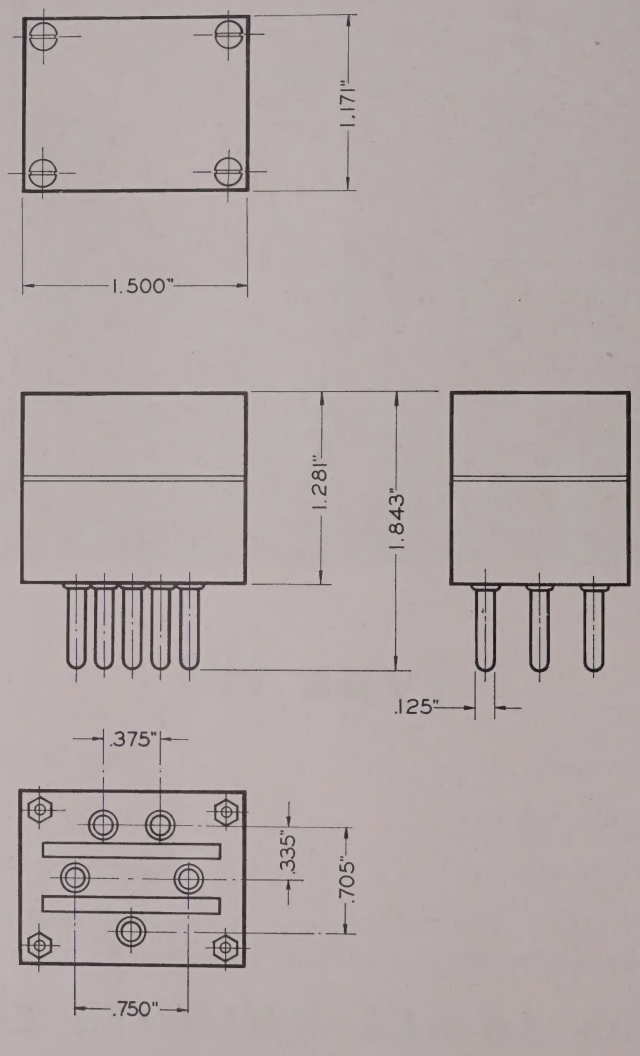
(Holder Accomodates Four Crystals and Each Crystal Can Have Range of 2000 KC to 10000 KC)

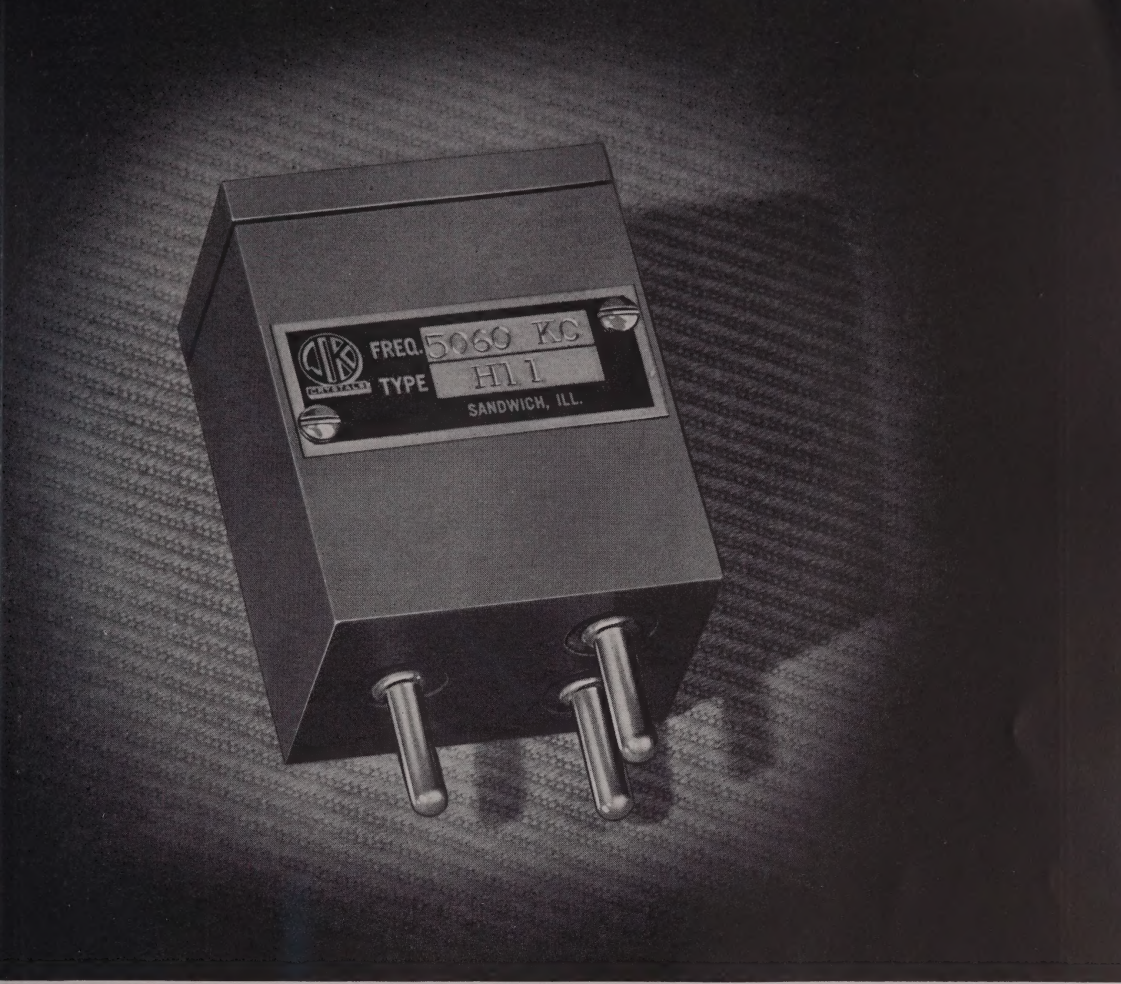
The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type H9





Type H11

Frequency Range ..... 100 KC to 10000 KC

Frequency Tolerance Max..... .01%

Frequency Drift Max..... 2 PPM per Degree Cent.

Holder.....Phenolic Material.....Waterproof Assembly

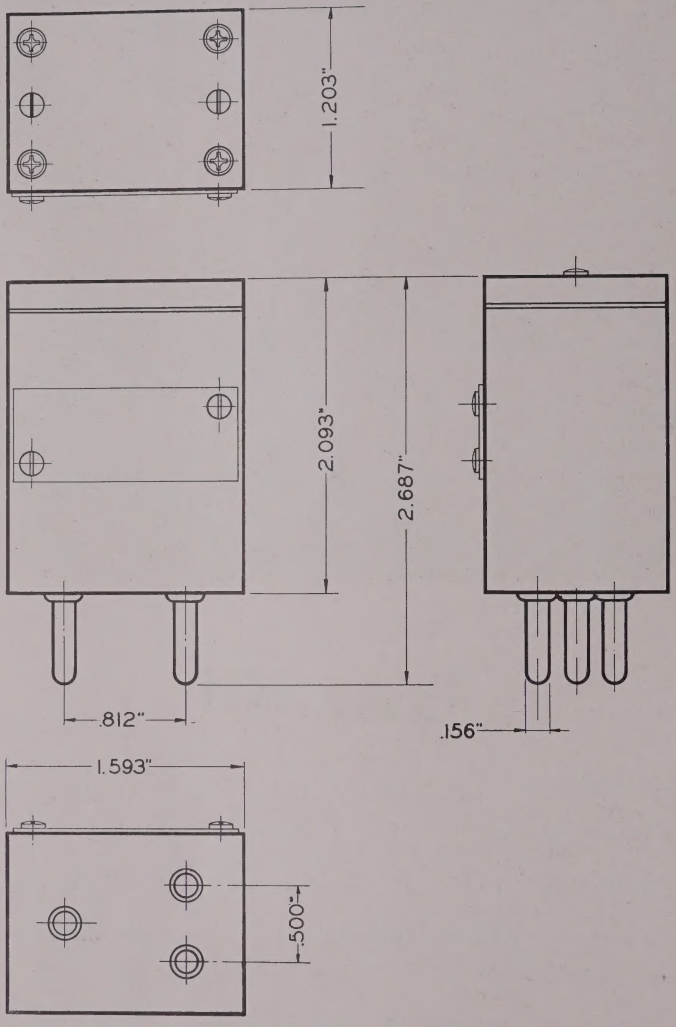
(Holder Accomodates Two Crystals and Each Crystal Can Have Range of 100 KC to 10000 KC)

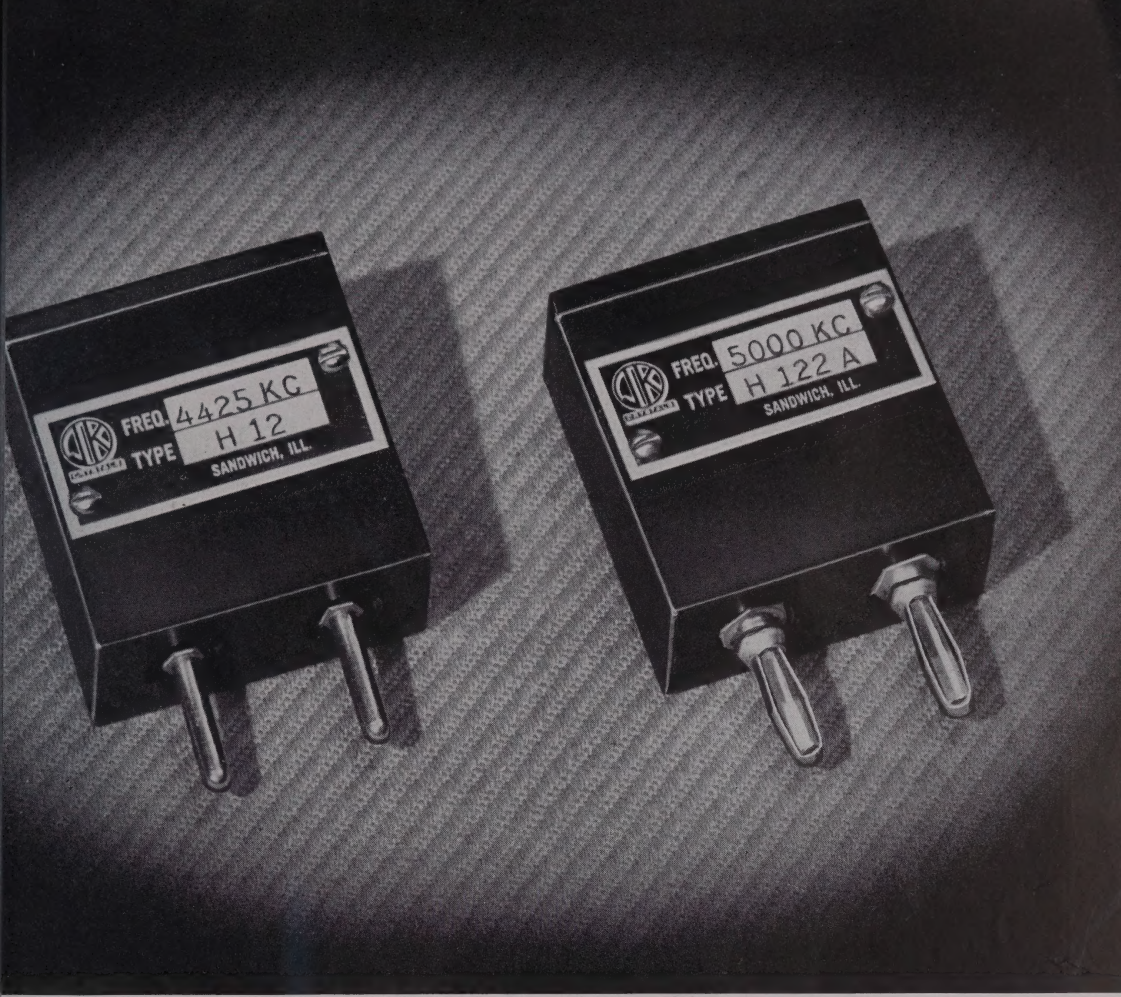
The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type H11





Types H12 — H122

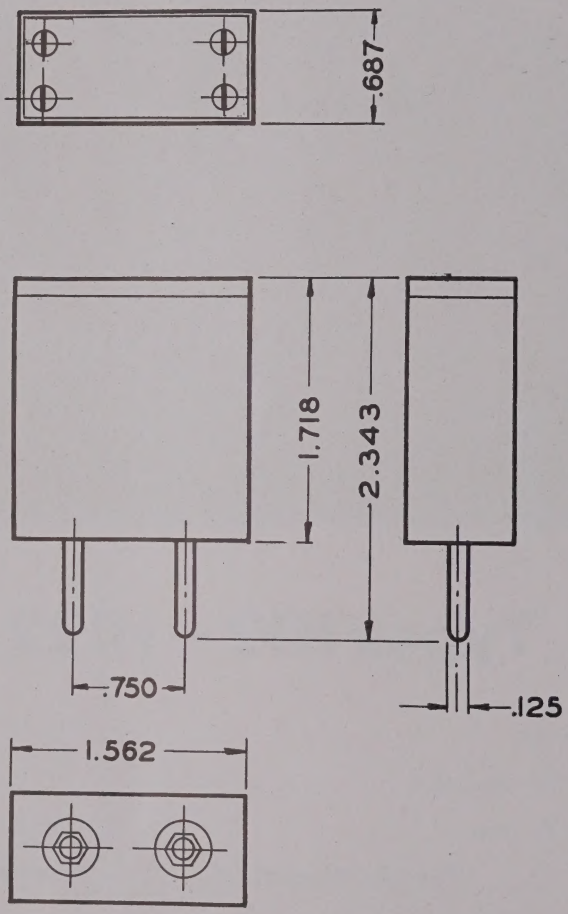
Frequency Range	150 KC to 12000 KC
Frequency Tolerance Max.	.01%
Frequency Drift Max.	2 PPM per Degree Cent.
Holders	Phenolic Material — Waterproof Assembly

The *JAMES KNIGHTS* Co.

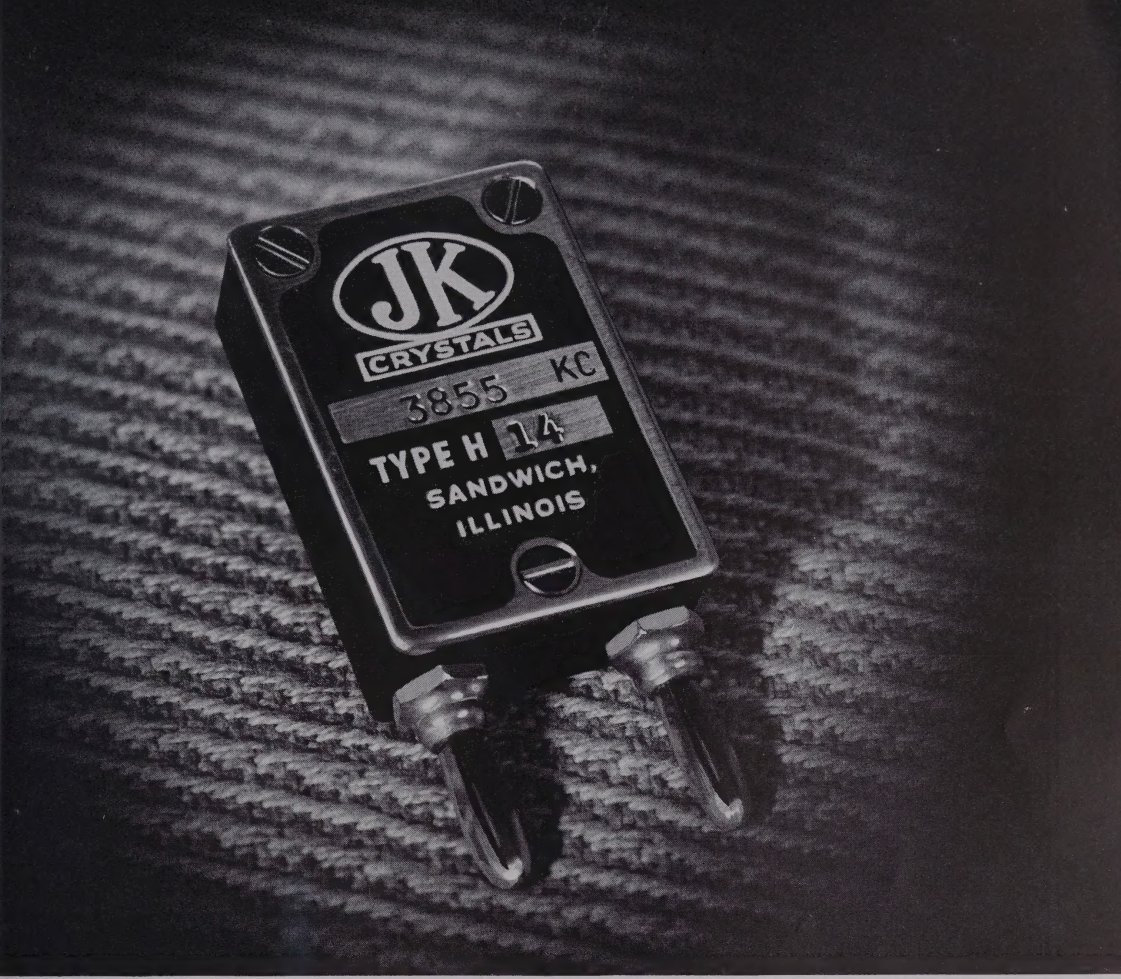
SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Types H12 — H122



Type H122 has Banana Pins



Type H14

Frequency Range	200 KC to 30,000 KC
Frequency Tolerance Max.	.01%
Frequency Drift Max.	2 PPM per Degree Cent.
Holder	Waterproof Phenolic Material

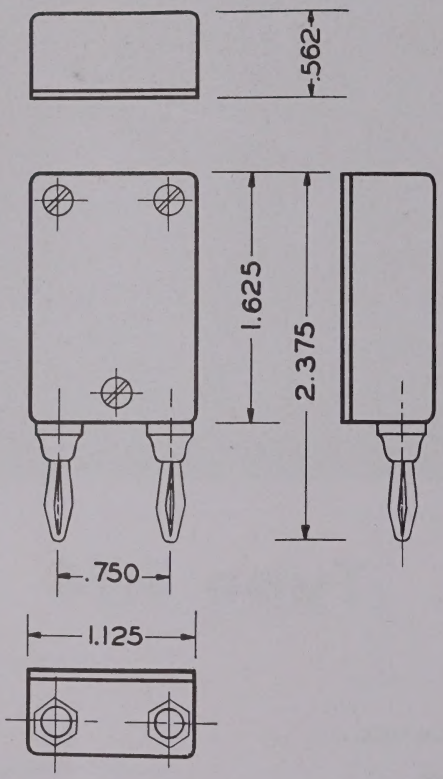
The *JAMES KNIGHTS* Co.

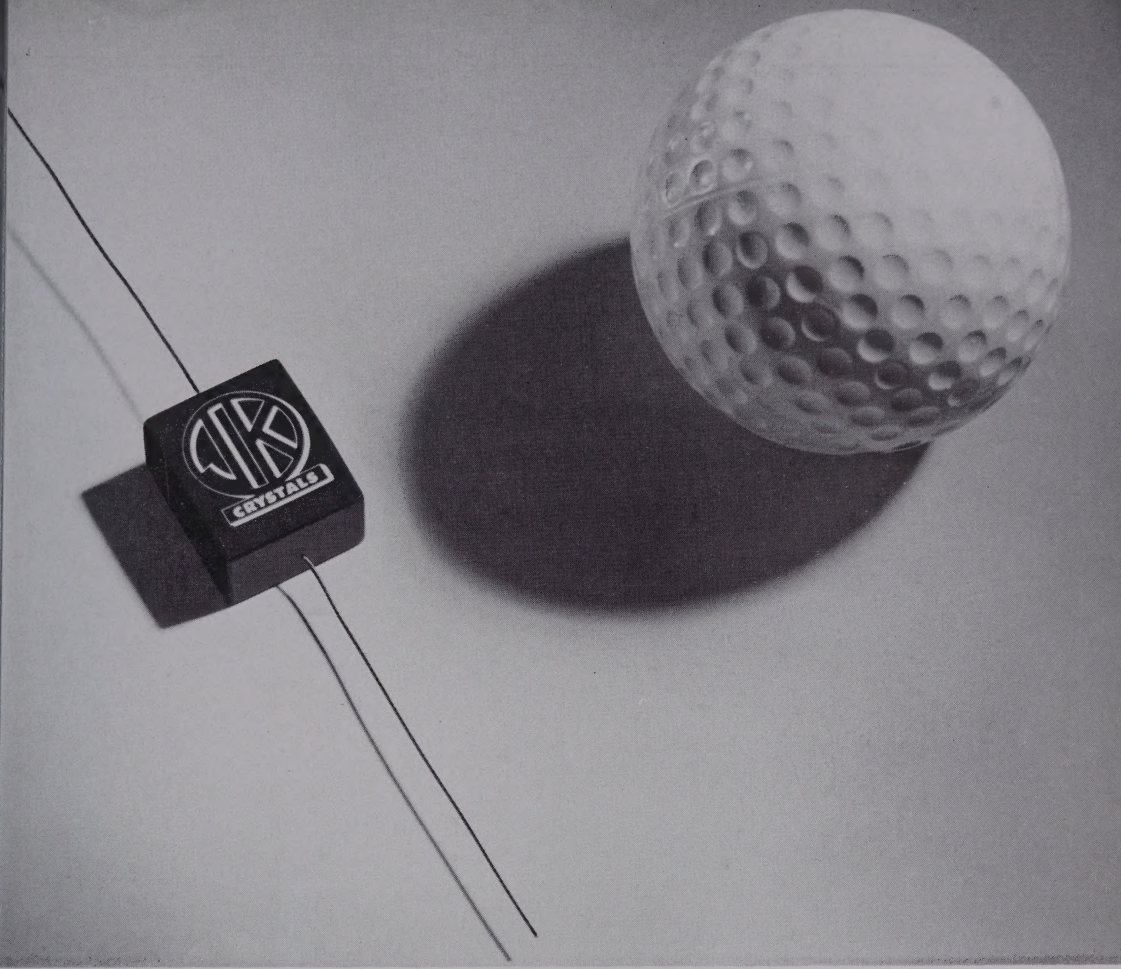
SANDWICH, ILLINOIS

60 Miles Southwest of Chicago

CRYSTALS FOR THE CRITICAL

Type H14





Type H15

Frequency Range	3000 KC to 9000 KC (Can be supplied as special on other frequencies)
Frequency Tolerance Max.	.01%
Frequency Drift Max.	2 PPM per Degree Cent.
Holder	Phenolic Material

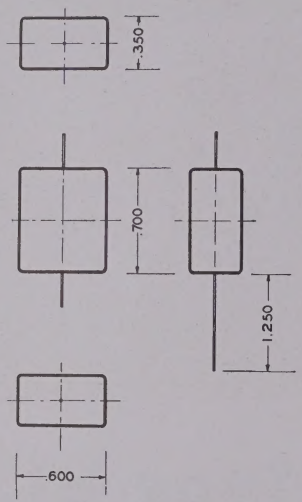
The *JAMES KNIGHTS* Co.

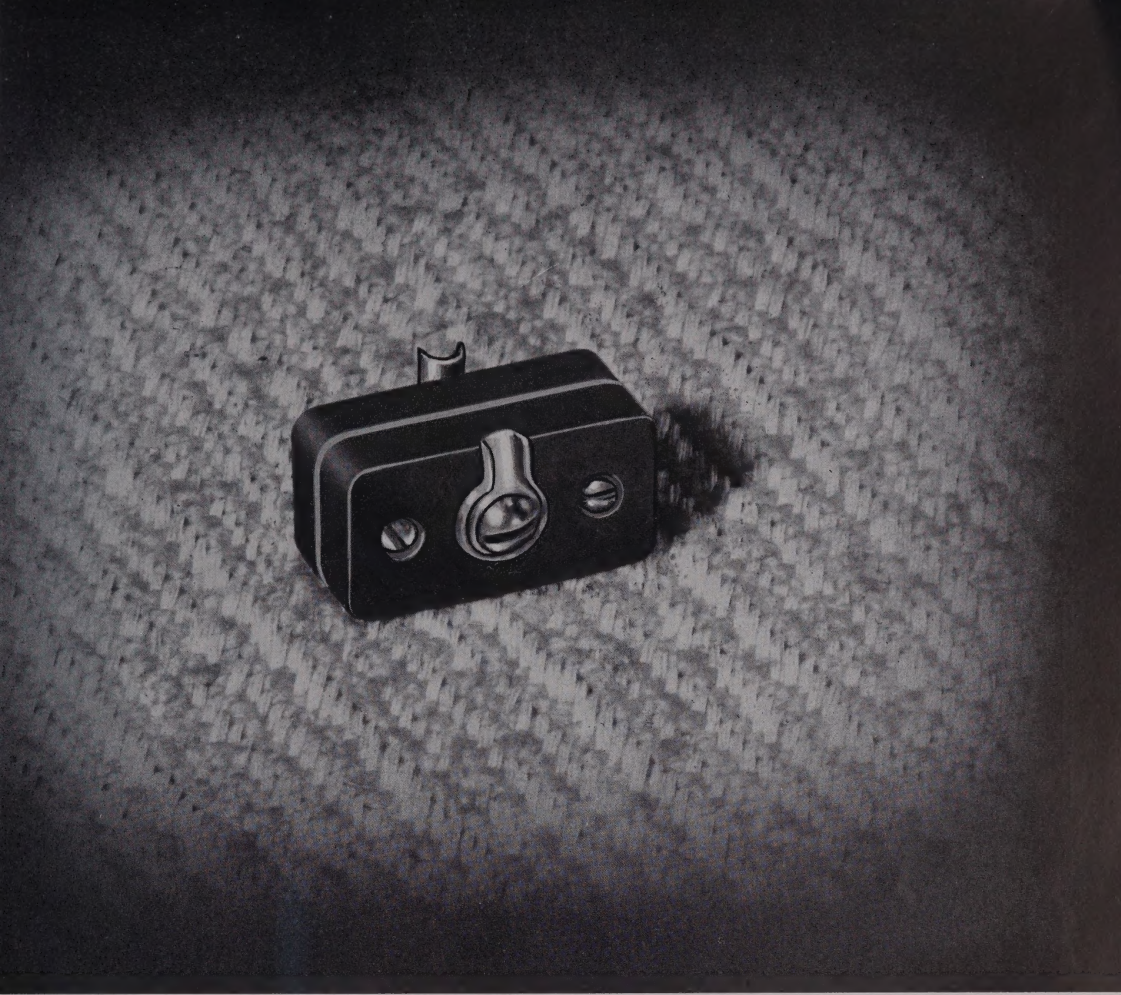
SANDWICH, ILLINOIS

60 Miles Southwest of Chicago

CRYSTALS FOR THE CRITICAL

Type H15





Type IF6

(Filter Type)

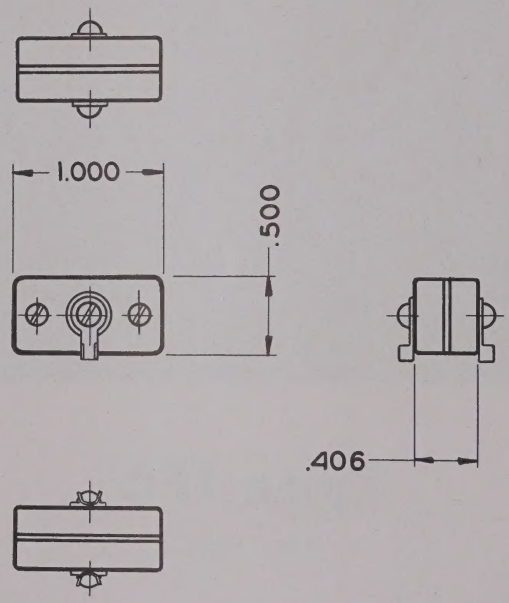
Frequency Range	220 KC to 3500 KC
Frequency Tolerance Max.	1%
Holder	Phenolic Material

The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type IF6



Type T9

Frequency Range . . . . . 65 KC to 30000 KC

Frequency Tolerance Max. 01%

Frequency Drift Max. . . . . 2 PPM per Degree Cent.

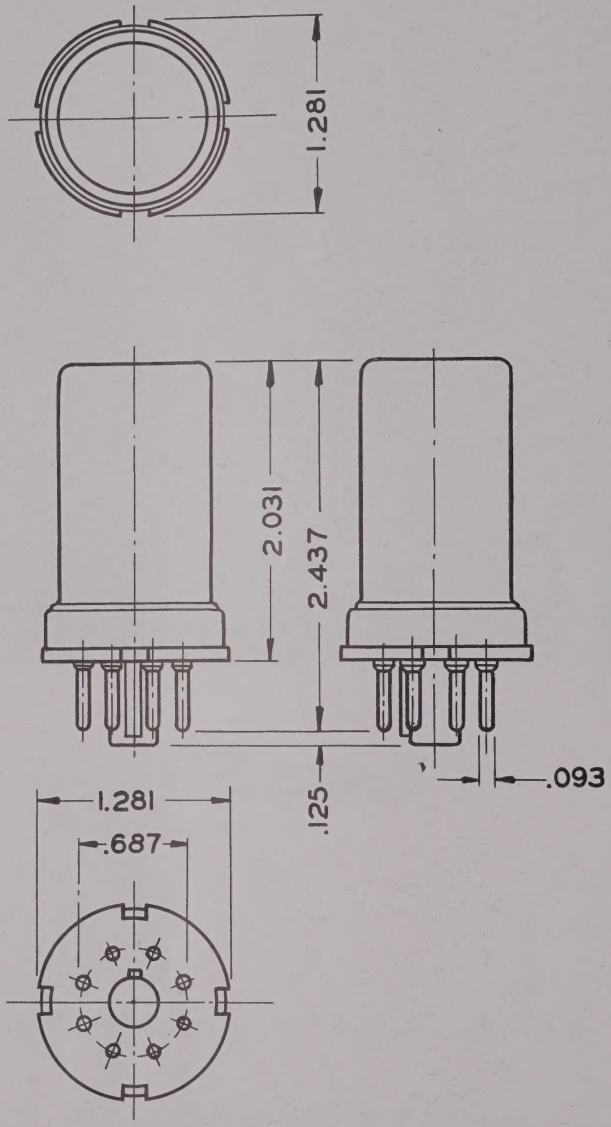
Holder . . . . . J-5 Metal Tube Type . . . . . Gas Filled Waterproof Assembly

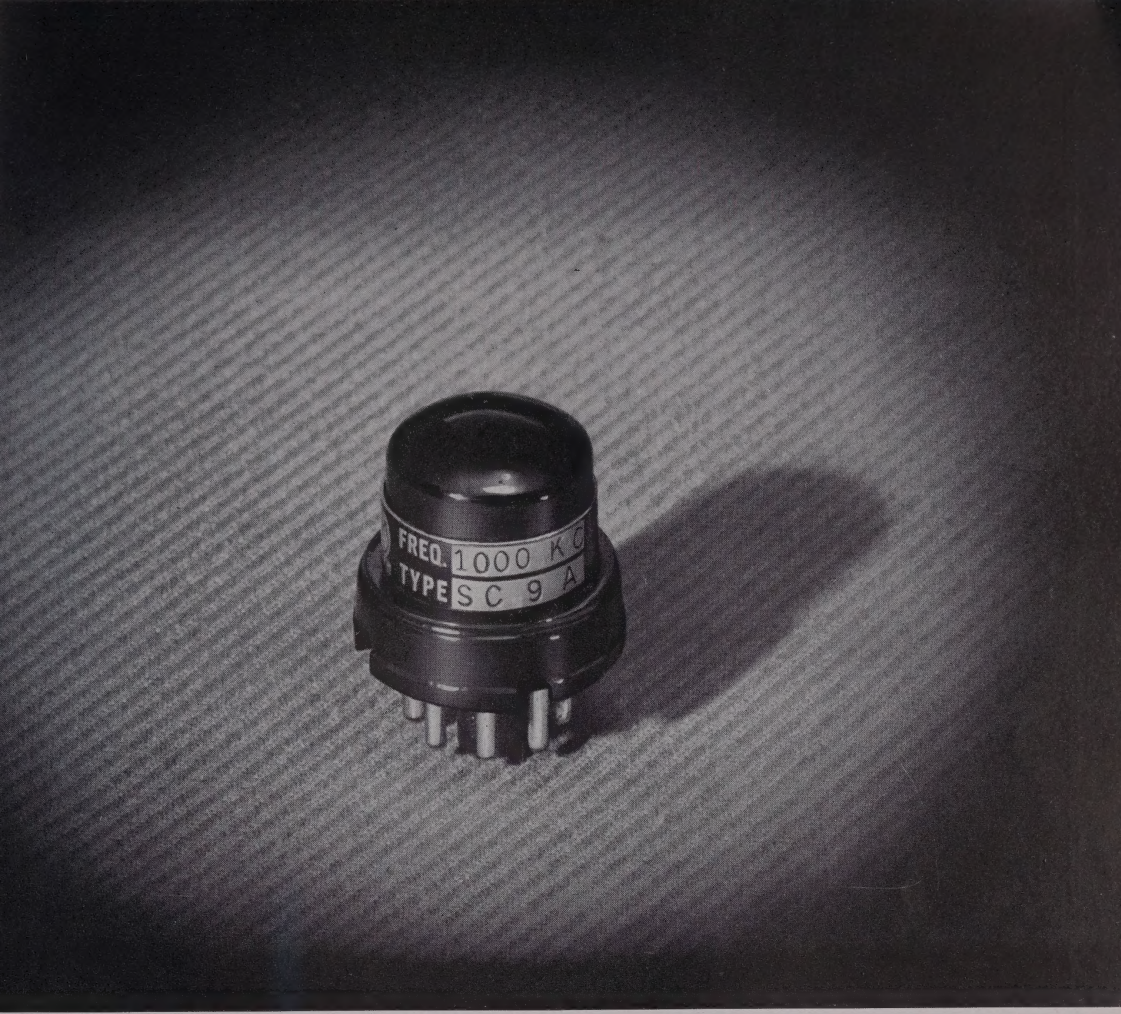
The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type T9





Type SC9A

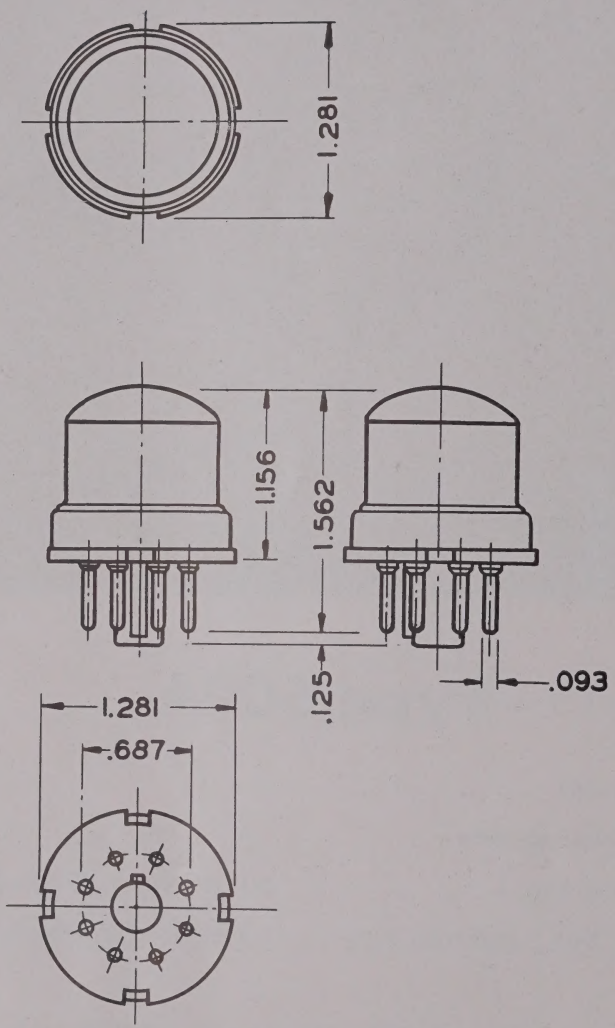
Frequency Range	1000 KC
Frequency Tolerance Max.	±10 Cycles
Frequency Drift Max.	±50 Cycles over 100 Degrees Cent.
Holder	H-6 Metal Tube Type
	Gas-Filled Waterproof Assembly

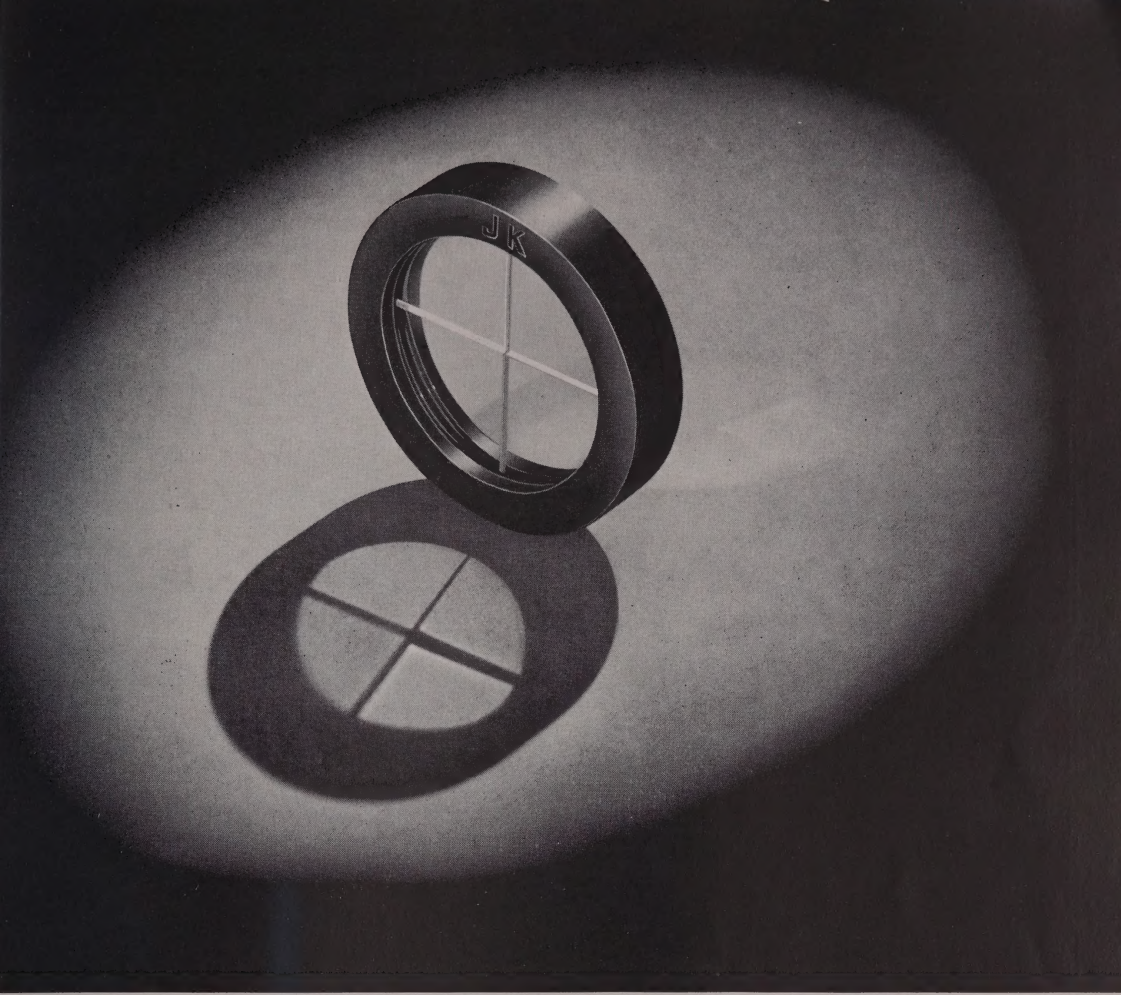
The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Type SC9A





BERTRAND PLATE *Type BP10*

Mounted in frame of phenolic material with two left handed and two right handed quartz quadrants free from optical twinning.

Thickness of Quartz . . . . . 2 mm.

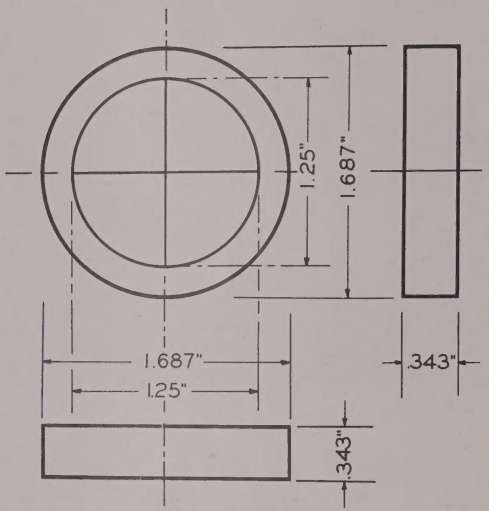
Rotatory power per millimeter of quartz thickness: 21°72 for D line of sodium ($\lambda = 5892.9A$).

Prices quoted on request for James Knights Bertrand Plates made to order in other thicknesses.

The *JAMES KNIGHTS* Co.
SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

Bertrand Plate Type BP10



FREQUENCY STANDARD *Type FS-344*

Frequency Range	100 kc and 10 kc Steps	100 kc to 40 mc
Frequency Range	1000 kc Steps	1000 kc to 500 mc
Frequency Tolerance	All frequencies	Exact
Control Crystals	100 kc and 1000 kc	Type T93
Power Consumption		40 watts
Power Supply		115 Volts A. C. - 60 cycles
Cabinet	Metal with Grey Crackle Finish—12" W x 8" H x 8" D	

The *JAMES KNIGHTS* Co.

SANDWICH, ILLINOIS

CRYSTALS FOR THE CRITICAL

RM 818-1046

INDUSTRIAL AND COMMERCIAL PRICE LIST
J K STABILIZED CRYSTALS
EFFECTIVE OCT. 15, 1946
APPLICABLE TO OUR GENERAL CATALOG

Type	Frequency Range	Temp. Range	List Price
JKO, less thermometer	80 kc to 7500 kc	+ or - 1°C	$45.00
JKO, with "	80 kc to 7500 kc	+ or - 1°C	55.00
H2	200 to 20000 kc		14.95
H2	3105 kc and 6210 kc only	+ 50° to - 30°C	9.00
H3	100 kc to 150 kc		10.95
H3	70 kc to 99.99 kc		14.95
H3S	100.1 kc to 150 kc		10.95
H3 and H3S	100 kc exact		7.50
H4	150 kc to 20000 kc		14.95
H4	3105 kc and 6210 kc only	+ 60° to - 30°C	9.00
H5	100 kc to 20000 kc		19.95
H6	100 kc to 8000 kc		24.95
H7	200 kc to 20000 kc		14.95
H7	3105 kc and 6210 kc only		5.95
H9, with 4 crystals	200 kc to 20000 kc		49.95
H11, with 1 crystal	100 kc to 20000 kc		19.95
H11, with 2 crystals	100 kc to 20000 kc		29.95
H12	150 kc to 20000 kc		14.95
H12	3105 kc and 6210 kc only	+ 60° to - 30°C	9.00
H122	150 kc to 20000 kc		14.95
H122	3105 kc and 6210 kc only	+ 60° to - 30°C	10.00
H14	150 kc to 20000 kc		14.95
H14	3105 kc and 6210 kc only	+ 60° to - 30°C	10.00
H15	Quoted on request, depending on quantities		
H16	100 kc exact		6.95
H16	80 kc to 300 kc		14.95
IF6	455 kc		3.95
IF6	220 kc to 3500 kc		5.95
T8MD	100 kc and 1000 kc		16.95
T9	65 kc to 20000 kc		15.95
T93	100 kc exact		7.50
T93	1000 kc exact		7.50
SC9A	1000 kc only		15.95
SC9	Can be supplied on other frequencies		
BP10	Bertrand plate		29.95
FS-344	Frequency Standard		79.50

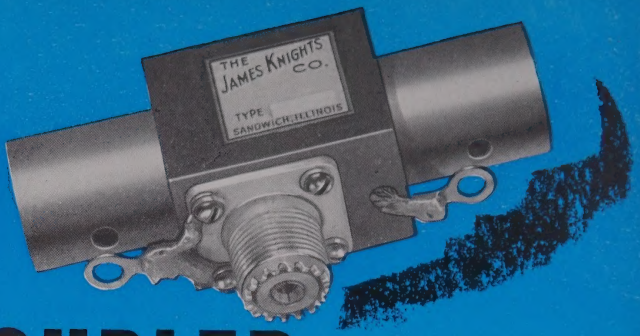
Prices Subject to Change without Notice
Terms -- Net - FOB Sandwich, Illinois

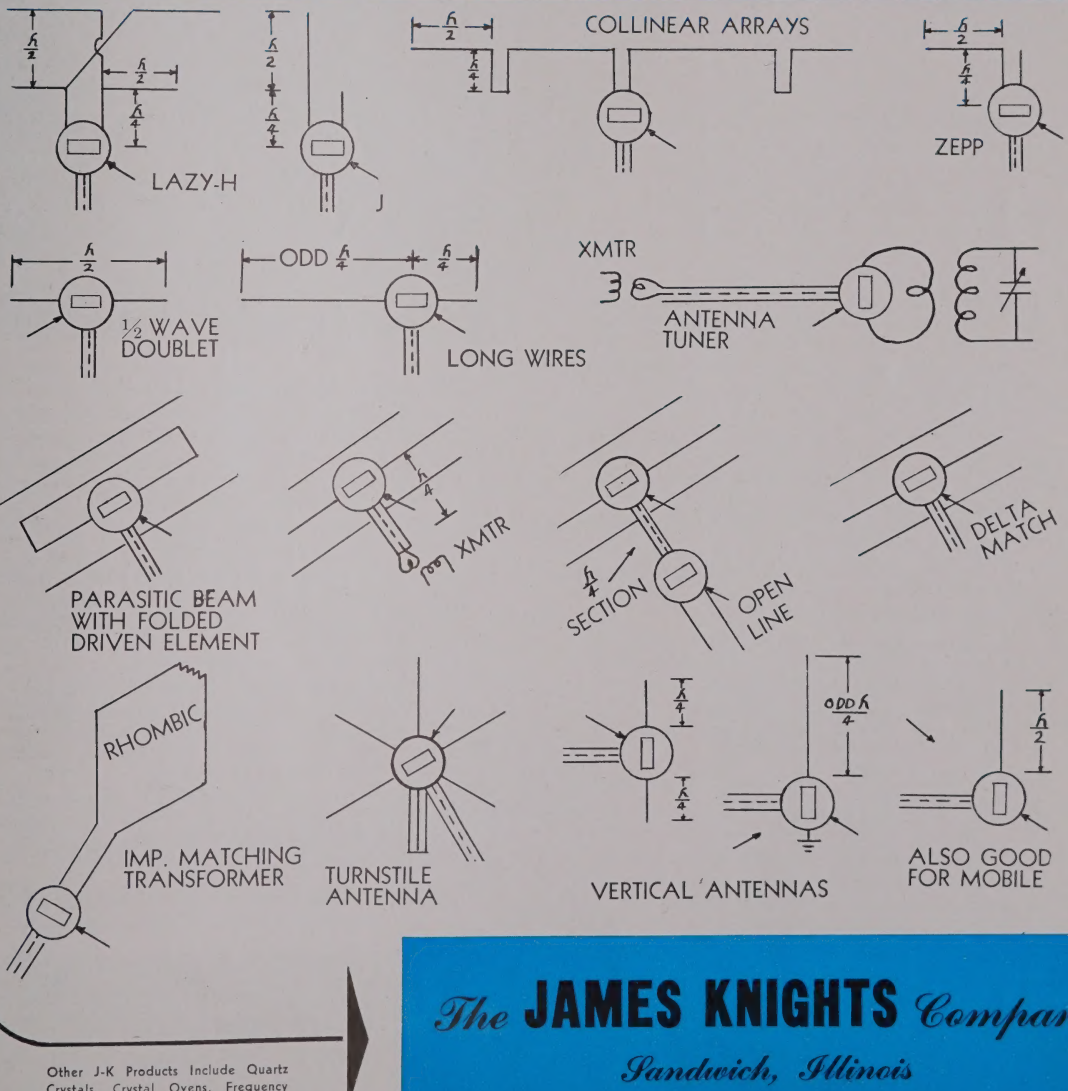
CRYSTALS MADE ON SPECIAL ORDER TO MEET ALL SPECIFICATIONS
QUOTATIONS ON REQUEST

THE JAMES KNIGHTS CO.
SANDWICH, ILLINOIS

Catalogs Available on Request

IBC-3
IMPEDACOUPLER





Other J-K Products Include Quartz Crystals, Crystal Ovens, Frequency Standards.

The **JAMES KNIGHTS** *Company*

Sandwich, Illinois

Announcing...

JK IBC
IMPEDACOUPL

Here's the most versatile and practical
insulator-connector that has ever been offe
radio amateur or the professional operat
IMPEDACOUPLER makes a secure and w
proof junction between Amphenol coaxial li
any current fed antenna or array. It also can
in many other ways: for connection to flat
an open wire line and to serve as a center i
of a ½ wave doublet. Fifteen practical appl
of the IMPEDACOUPLER are diagrammed
reverse side of this folder — and that's o
beginning of this unit's versatility.

The J-K IMPEDACOUPLER is truly a universal type antenna insulator-connector for making a secure weatherproof junction between Amphenol "RG" type flexible coaxial line and any current fed antenna or array. It can also be used with Amphenol "flat lines" or with the usual type of open wire lines.

Equipped with an Amphenol type 1R receptacle, the IMPEDACOUPLER requires only the addition of an Amphenol type 1SP cable connector on the end of the coax line, for quick, positive connection without fanning and without disrupting terminal impedance of the line.

A genuine MYKROY center insulator block provides optimum dielectric properties, has ample strength to withstand the pull of the antenna and to support the weight of the coaxial line. The IMPEDACOUPLER provides maximum insulation with the minimum of weight.

The insulator is drilled at both ends for bolt or rivet for holding tubing and connections, or for looping wire if latter is to be used.

The insulator ends are machined to fit the inside diameter of standard aluminum or dural tubing having 1" outside diameter, commonly used by amateurs for rotary beams. If smaller tubing is to be employed, the user can easily turn down the insulator ends to fit his particular needs.

The IMPEDACOUPLER can be used to couple coaxial cable to:

1. Center of ½ wave doublet—
2. Any current fed point on long wire array—
3. Bottom end of open wire matching stubs—
4. Driven element of rotary beams when coax is used as ¼ wave matching section and also from coax section to the open wire line—
5. Terminating junction at either end of coaxial line between transmitter and remote antenna tuner—
6. Ground plane antennas and center or base ins on mobile and other vertical antennas—
7. Delta match at center of driven element in pa arrays and other similar installations.

The IMPEDACOUPLER preserves necessary pro of coax leads at antenna end of line making it unn sary to "fan" end of line in bridging across the orc types of antenna insulators used in the center of a let. Such "fanning" is often done in a random ma preventing good impedance match between an and line.

The connector makes a tight junction without op the end of the cable. Because it is not opened, the end is completely weather-proofed. Losses from moi deterioration at antenna end of the line and resu insulation breakdown is eliminated.

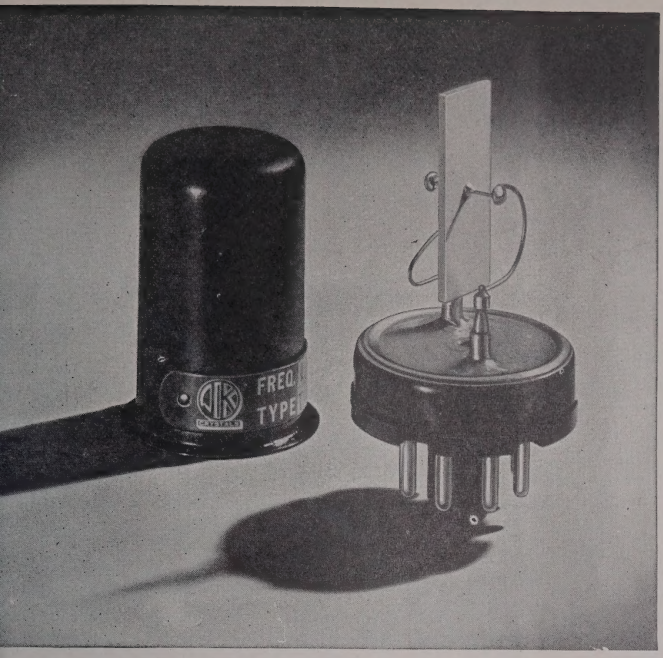
With the J-K IMPEDACOUPLER you can rest as that standing waves will not exist on a transmission terminated in the characteristic or surge impedan

Weight Only 6 oz.

Net Price Less Amphenol 1SP Connector $3
(Subject to Change)

The JAMES KNIGHTS Com
Sandwich, Illinois

PRINTED IN U.S.A.



Here it is – A New and Better *Crystal* Type T9AD

SPECIFICATIONS

equency Range ..... 85 kc to 200 kc
Can be extended for special applications

equency Tolerance ..... .005%
Can be supplied to customers specifications

ounting ..... Plated and wire mounted

older ..... J5 tube type
Hermetically Sealed

ot affected by changes in atmospheric pressure or extreme humidity conditions

equency Drift Max. plus 20 degrees C. to plus 40 degrees C. less than 3 cycles

equency Drift Max. minus 40 degrees C. to plus 70 degrees C. less than 15 cycles

Can be mounted in any position

Meets J. A. N. Specifications

st Price $15.95

The JAMES KNIGHTS Co.

SANDWICH, ILLINOIS

Sixty Miles Southwest of Chicago

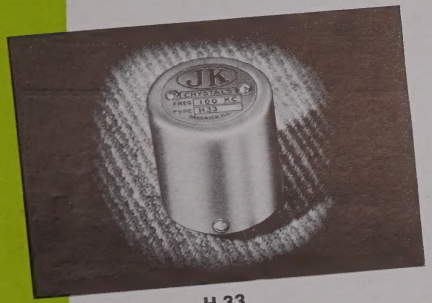
JK CRYSTALS

Crystals for the Critical

H 23

H23 STABILIZED CRYSTAL

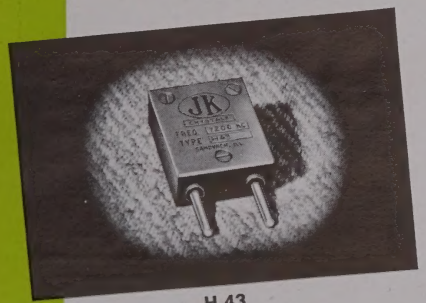
(Any amateur frequency between 2,000 KC and 9,000 KC.) Drift: not more than 2 P.P.M. per degree cent. from −10° to +60° C. (Usually less than 1 P.P.M. per degree cent.) Holder: Water and dust-proof phenolic material. Mounting: Especially designed to eliminate drift. Top Plate: Heavily plated brass. Electrodes: Stainless steel. Dimensions: 1.3″x.7″. Pin Spacing: ¾″. Pin Diameter: ⅛″.



H 33

H33 STABILIZED CRYSTAL

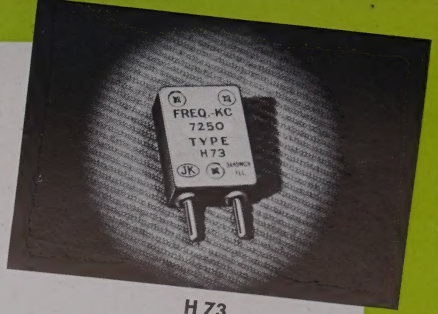
(100 KC) This crystal was designed and patented by us. It makes an ideal precision 100 KC standard for frequency measuring work of all types. Clamped at nodal point. Drift: Less than 1. P.P.M. per degree cent. from −10° to +60° C. Holder: Moisture and dust-proof phenolic base—metal shield cover. Mounting: Especially designed to eliminate drift. Name Plate: Heavily plated brass. Electrodes: Pure silver. Shield Cover Dimensions: 1¾″x1¾″. Pin spacing: ¾″. Fits ordinary 5 prong socket. NOTE: Type H33 can also be supplied in special frequencies from 70 KC to 150 KC.



H 43

H43 STABILIZED CRYSTAL

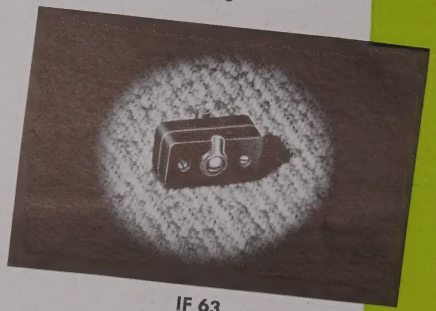
(Any amateur frequency between 2000 KC and 30,000 KC.) Drift: Not more than 2 P.P.M. per degree cent. from −10° to +60° C. (Usually less than 1 P.P.M. per degree cent.) Holder: Water and dust proof phenolic material. Mounting: Especially designed to eliminate drift. Top Plate: Heavily plated brass. Electrodes: Stainless steel. Dimensions: 1.4″x1.2″x.5″. Pin Spacing: ¾″. Pin Diameter: ⅛″.



H 73

H73 STABILIZED CRYSTAL

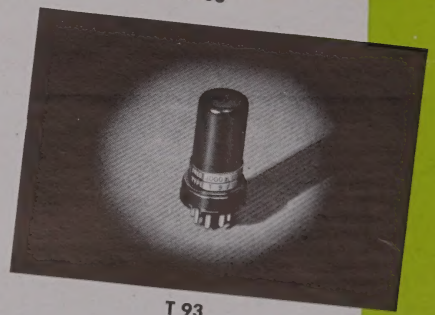
(Any amateur frequency between 2000 KC and 30,000 KC.) Drift: Not more than 2 P.P.M. from −10° to +60° C. (Usually less than 1 P.P.M. per degree cent.) Holder: Water and dust proof phenolic material. Mounting: Especially designed to eliminate drift. Top plate: Heavily plated brass. Electrodes: Stainless steel. Dimensions: 1.8″x.5″x.8″. Pin spacing: ½″. Pin diameter: .093″. Fits regular octal socket.



IF 63

IF63 STABILIZED CRYSTAL

(455 KC Filter Type.) Used as standard equipment by many of the largest receiver manufacturers. Extremely close quartz orientation and low interelectrode capacity for uniform results in filter circuits. No spurious response within plus or minus 7 KC of nominal frequency. Frequency Tolerance: .1 of 1%. Dimensions: 1″x½″x.4″



T 93

T93 STABILIZED CRYSTAL

(For frequency standard or high precision operating frequency.) An exceptionally fine crystal and holder. Holder is of the same type and dimensions as the J5 metal tube. It makes an ideal mounting for 100 and 1000 KC standard crystals. Frequencies: 100 KC, 1000 KC and any amateur frequency between 2000 KC and 30,000 KC. Frequency Tolerance: .01%. Drift: Less than 2 P.P.M. per degree cent. on frequencies between 2000 and 30,000 KC from −10° to +60° C. (Usually less than 1 P.P.M. per degree cent.) Less than 1 P.P.M. on 100 KC and 1000 KC. Holder: Metal tube type—moisture and vibration proof. Dimensions: 2″x1.2″. Fits regular octal socket.

*JK "Stabilized" Crystals are made by the latest known methods of crystal manufacture. Our process known as "Stabilizing" absolutely prevents frequency shifts due to aging in use or on the shelf. "Stabilized" Crystals are your assurance of better and longer crystal performance. NOTE: T93, H43 and H73 "Stabilized" Crystals are furnished as fundamental oscillators up to 9,000 KC and as harmonic oscillators at higher frequencies.

Manufacturers of a Complete Line of Industrial, Broadcast, Communication and Amateur Crystals

JK CRYSTALS

Crystals for the Critical

JK CRYSTALS

The *JAMES KNIGHTS* FS-344 Frequency Standard

This is the famous JK Secondary Frequency Standard which is performing so excellently for Amateurs, the Army Signal Corps, the Navy, Colleges, Police radio, servicemen and many others. Upon reaching normal operating temperature, the FS-344 will maintain a frequency stability that is phenomenal and may be used hour after hour for precise measurement work. Two hermetically sealed, "Stabilized" crystals are used for frequency control (1000 kilocycle and a 100 kilocycle) which provide dependable, drift-free, fundamental frequencies. Carefully designed circuits and components of the highest quality permit flexibility of operation found in equipment costing several times as much.

The frequency range of 100 KC to 40 MC in 100 and 10 KC steps and in 1000 KC steps from 1 MC to 500 MC (with a minimum of 15 microvolts output) provides a standard signal for almost any purpose. The FS-344 may be used to check transmitter frequency, the frequency of received signals, to check band edges, alignment of receivers and general frequency measurements in the laboratory or factory. More stringent FCC frequency requirements for amateurs make it important that exact transmitter frequency limits be maintained. Periodic use of the FS-344 Frequency Standard will be positive assurance that you will always be operating properly within your assigned band.

The JK Frequency Standard is a beautifully designed instrument. Its durable gray crackle finish presents an appearance of smart precision. Dimensions: 12x"8"x8". Power Supply: 115 Volts A.C.—60 Cycles. Complete with Tubes and JK "Stabilized" Crystals.

JAMES KNIGHTS Product!

The men of The James Knights Company have been designing and making precision crystals since 1932. Their extensive experience with crystals for every conceivable purpose is coupled with an active background in radio dating back to 1913. They have pioneered in the development of X-ray orientation, the vacuum tube type of holder and in various precision cuts and scientific improvements now accepted as standard.

JK "Stabilized" Crystals are the final product resulting from these years of research and development. Painstaking care in each phase of manufacture plus thorough final tests give you positive assurance that your JK "Stabilized" Crystals will render long and dependable service.

The James Knights Company guarantees that every JK "Stabilized" Crystal will perform satisfactorily within the tolerances specified and that they are free from any defects in material or workmanship.

JAMES KNIGHTS
"A Radio Researcher Since the Early Days"

LEON A. FABER
W9DAX
"An Active Ham since 1913"

Both James Knights and Leon Faber have radio backgrounds that are measured no only in years but in decades. James Knights, as an operator of a progressive radio and electrical business for many years, was one of the few Amateurs of the early days. Later, his interest in quartz crystal oscillators led him into research resulting in crystal making methods that are today the criteria of the industry.

Leon Faber's interest in Amateur Radio has kept him in the ranks as an active Ham since he earned one of the very first "Tickets." He is now being heard on the air with his pre-war call—W9DAX. Having started making crystals as far back as 1932, his experience over the years has lead to the invention and development of many quartz shaping processes that continually boosted the production and efficiency of accurate crystals when the armed forces needed them most critically.

The entire James Knights organization gets a "kick" out of solving a new problem and takes tremendous pride in doing an exact job to difficult specifications and doing it in a hurry. They know what is expected of a good Ham Crystal.

JK "Stabilized" Crystals

Precision Quality for the Amateur!

When building your new rig, or revamping the old one, be sure to use JK "Stabilized" Crystals—the crystals that are so carefully made and so perfectly mounted that you can install them and forget about them. JK "Stabilized" Crystals will stay "right on" at any normal operating temperature, and they're not affected by dust, moisture or vibration. Order them from your favorite radio parts distributor.

The *JAMES KNIGHTS* Co.
SANDWICH, ILLINOIS
Sixty Miles Southwest of Chicago

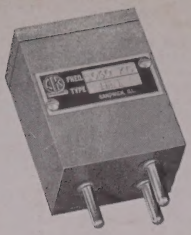
CRYSTALS FOR THE CRITICAL

Form 346-A

Printed in U.S.A.

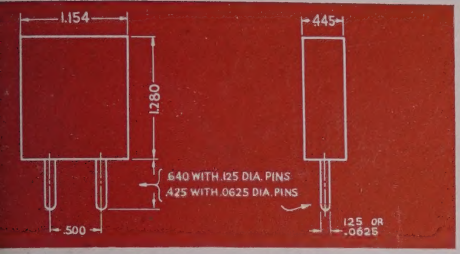
JK STABILIZED H13

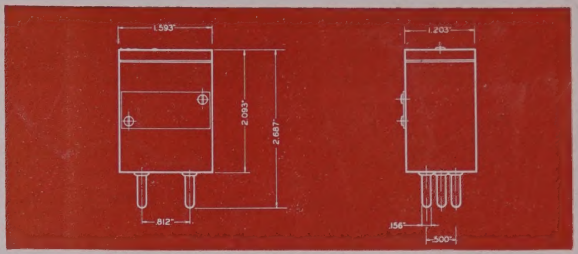
Frequency range 175 kc to 325 kc. A small rectangular holder with ½" pin spacing. Pin diameter .062" or .125". Holder is phenolic material, waterproof and dustproof. All crystals in this holder are plated and wire mounted. Unit may be mounted in any position and will stand medium vibration.



JK STABILIZED H11

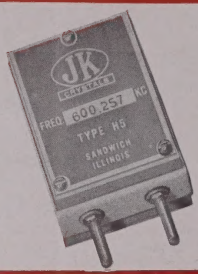
Frequency range 100 kc to 10 megacycles. Phenolic case, will stand medium vibration. 3-pin base with pin diameter .156" and spaced 500" and .812". Can be supplied with 2 crystals or 1 crystal and a heater unit for maintaining constant temperature of the installed crystal. May be mounted in any position and is an extremely stable unit.





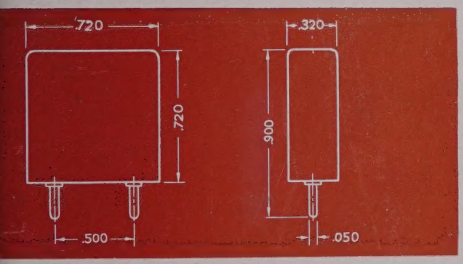
JK STABILIZED H17

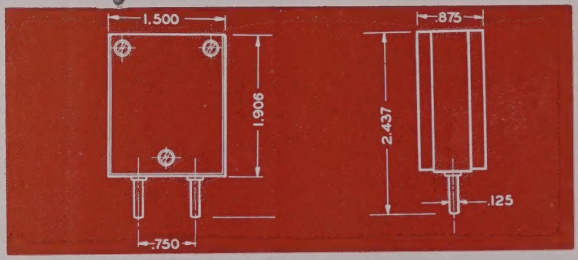
Frequency range 3 mc to 20 mc. The pin spacing is such that two units can be mounted in a loctal socket. A small extremely light weight hermetically sealed unit. Moisture and dustproof. Designed especially for use where space is at a premium. The crystal is plated and wire mounted. Will stand maximum vibration.



JK STABILIZED H5

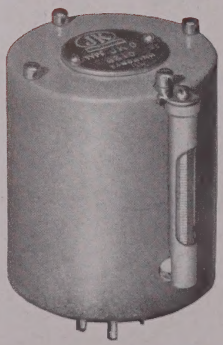
Frequency range 450 kc to 2 mc. A ceramic holder of a rugged design having ¾" pin spacing and airgap electrode adjustment to give exact frequency adjustment throughout the frequency range. May be mounted in any position. Will stand medium vibration.





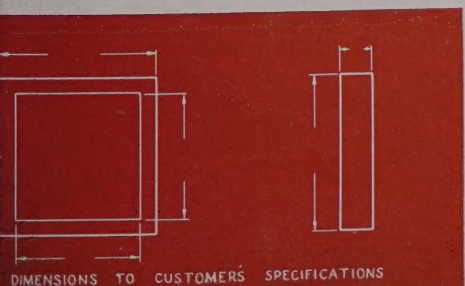
JK STABILIZED SUPERSONIC

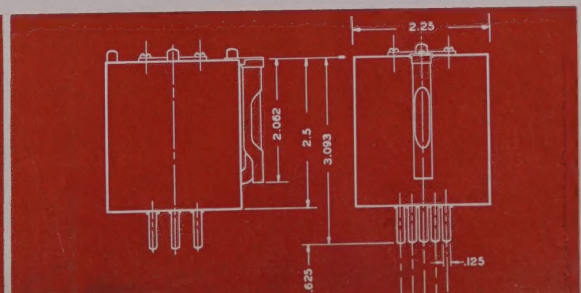
May be supplied in all frequencies used by the industry. Available with polished or rough surfaces. X cut crystals are normally used. Carefully oriented and cut from the best Brazilian quartz obtainable. Guaranteed to be free from flaws and defects of any kind. Crystal surfaces can be silver plated if required. Leads can be soldered to the plating. All shapes can be supplied including round, hexagonal, rectangular and square.



JK STABILIZED OVEN

Range 80 to 7500 kc. Standard five prong base. Octal on special order. Approved by the FCC for BC stations. Can be supplied in hermetically sealed, pressure mounted, plated and wire mounted crystals. Also with variable micrometer air gap mounting to give exact frequency adjustment. Plus or minus 1 degree C maintained. 6.3 v. heater unit; others on special order. Current is approx. 1 ampere at 6.3 v. Molded phenolic body. Also available without thermometer or without side terminal.





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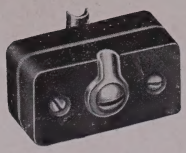
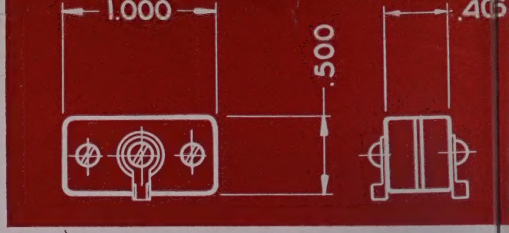
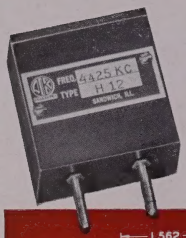


JK STABILIZED IF6

Can be supplied in wide frequency range—normally supplied at 455 kc. A small, compact, efficient filter crystal unit. Standard for years throughout the industry. Used by many manufacturers of commercial receivers. May be soldered directly into the circuit. Ceramic spacer used and a molded phenolic body. Holder capacity is especially low—permits sharp signal discrimination. Free from spurious frequencies within plus or minus 10 kc of nominal frequency.



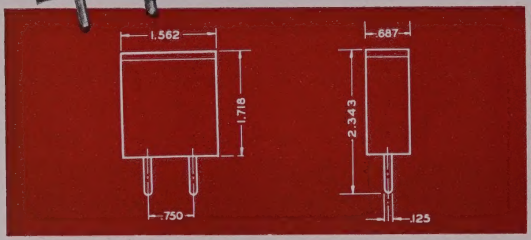


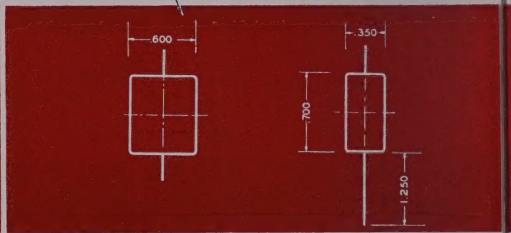
JK STABILIZED H12

Can be supplied in a frequency range from 350 kc to 20 mc. A rectangular holder with ¾" pin spacing, pin diameter, ⅛", with metal nameplate, dustproof assembly. Can also be supplied in H122 type with banana pins on ¾" centers. All quartz plates used in this holder are mounted between stainless steel electrodes and will stand medium vibration.

JK STABILIZED H15

May be supplied in frequency ranges fro 3 mc to 20 mc. A postage stamp size, lig weight crystal that has many application Phenolic case. Pigtail soldering connection Is dustproof and may be mounted in an position. Will stand medium vibration.



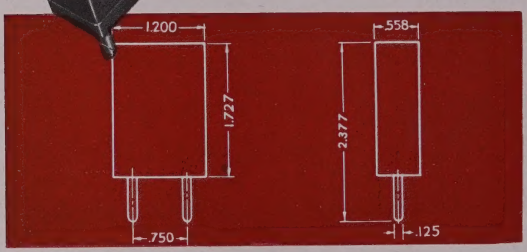


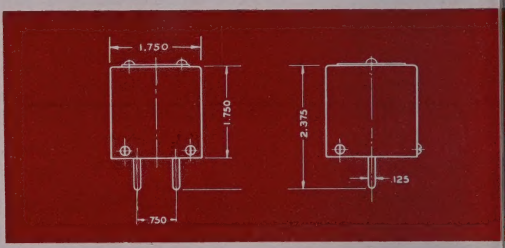
JK STABILIZED H16

May be supplied in a frequency range from 80 kc to 300 kc. A rectangular holder with ¾" pin spacing, pin diameter ⅛". Made especially for wire mounted quartz plates and is especially good for frequency standard crystals and frequency control crystals in the range for which it has been designed. Completely sealed against moisture. May be mounted n any position and will stand medium vibration.

JK STABILIZED H3

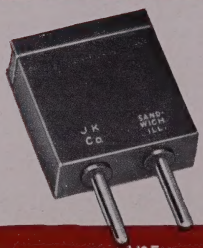
The frequency range is 70 to 300 kc. Ha ⅛" pins oh ¾" centers. Molded phenoli base, heavy gauge metal shield can. Th crystals are plated and wire mounted, ca be operated in any position, will stan medium vibration. Also available wit half inch pin spacing.





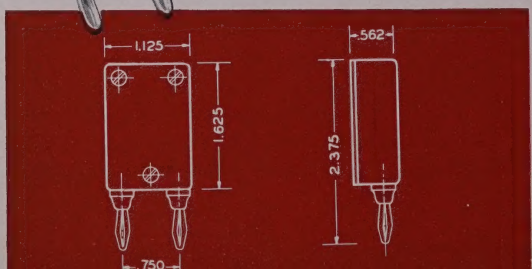
JK STABILIZED H14

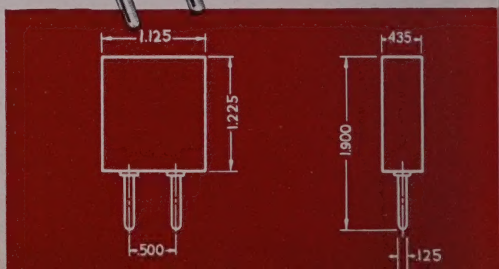
Can be supplied in a frequency range from 1800 kc to 20 mc. A rectangular holder with banana pins on ¾" centers, with metal nameplate, waterproof assembly. All quartz plates used in this holder are pressure mounted between stainless steel electrodes and will stand maximum vibration.



JK STABILIZED H8

Supplied in a frequency range from 3000 kc to 20 mc. A small rectangular holder with ½" pin spacing, pin diameter ⅛", and especially rugged. Pins will plug into the filament connections of a 5 prong socket. May be mounted in any position. Will stand maximum vibration.





U.S.A.

e JAMES KNIGHTS FS-344 Frequency Standard

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The JK Frequency Standard is a beautifully esigned instrument in durable gray crackle nish. Dimensions: 12" x 8" x 8". Power Supply: 15 Volts A. C. — 60 Cycles. Complete with ubes and JK "Stabilized" Crystals.

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MANUFACTURED BY

e JAMES KNIGHTS Co.

Sandwich, Illinois

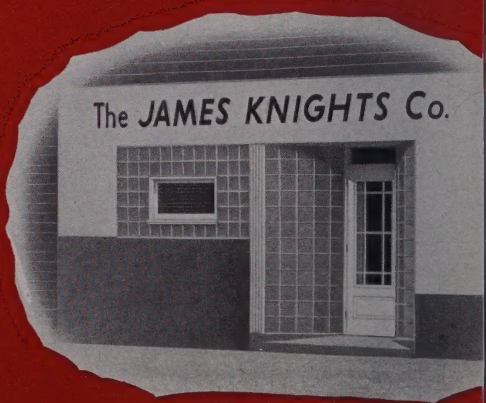
"STABILIZE

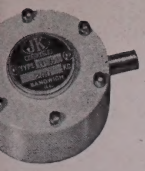
JK

CRYSTALS

The JAMES KNIGHTS

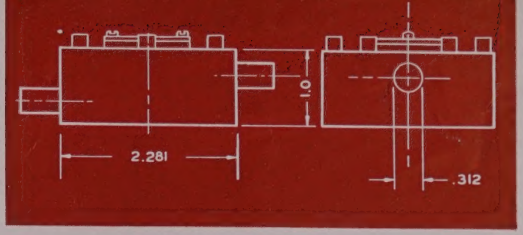
Sandwich, Illinois
60 Miles Southwest of Chicago





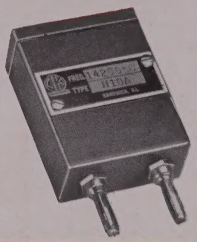
JK STABILIZED H6

Frequency range 100 kc to 2 mc. Heavy glazed procelain holder with micrometer adjustment of the upper electrode. Used in such equipment as broadcast monitors and frequency standards, radio beacons and wherever precision frequency adjustment is needed. Will stand limited amounts of vibration.



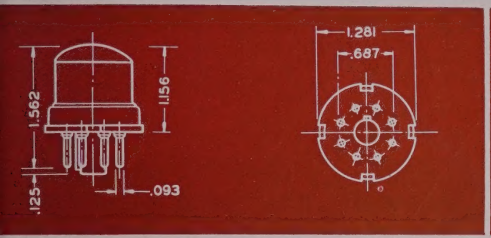
JK STABILIZED SC9A

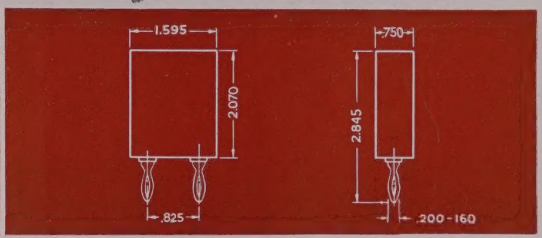
Frequency range from 1000 kc to 20 mc. Has a standard octal base with connections to the crystal on Pins 3 and 7. Small in overall size — the dimensions are the same as the 6H6 radio tube. May be operated in any position. Is absolutely water proof and dustproof. Will stand maximum vibration. A hermetically sealed unit.



JK STABILIZED H10

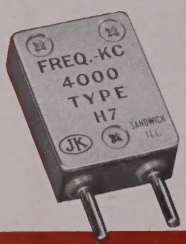
May be supplied in frequency range from 2 to 10 mc. Pin spacing .875. Uses banana pins. Dustproof, moistureproof, will stand maximum vibration and may be mounted in any position. An especially heavy duty crystal unit.





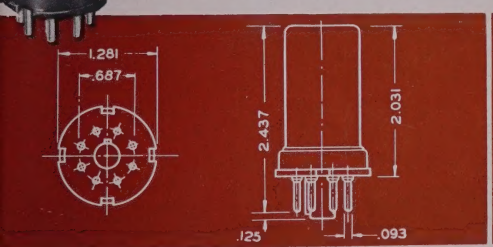
JK STABILIZED T9

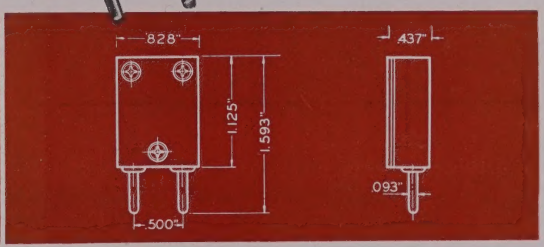
Can be supplied in frequency range from 85 kc to 20 mc. Has an octal base with the crystal leads connected to 3 and 7. The size is the same as a 6J5 radio tube. A hermetically sealed unit, recommended where particularly dusty or moist conditions prevail. May be operated in any position. May be used for frequency standard work. A very versatile unit. Will stand medium vibration.



JK STABILIZED H7

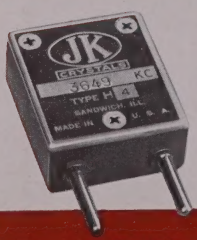
Frequency range 3000 to 20000 kc. Small rectangular holder with ½" pin spacing, pin diameter .093", with metal nameplate, waterproof assembly. All quartz plates used in this holder are pressure mounted between stainless steel electrodes and will stand maximum vibration. May be used plugged back to back in octal socket. A very rugged, compact, lightweight unit.





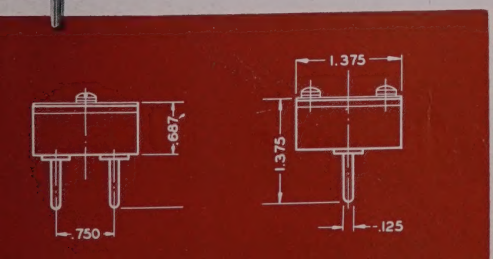
JK STABILIZED H2

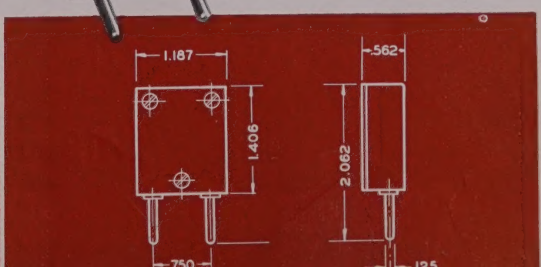
Can be supplied in a frequency range from 1800 kc to 20 mc. A round flat phenolic holder with ¾" pin spacing, pin diameter ⅛", metal nameplate, waterproof assembly. All quartz plates used in this holder are pressure mounted between stainless steel electrodes and will stand maximum vibration.



JK STABILIZED H4

Can be supplied in a frequency range from 1800 kc to 20 mc. A rectangular holder with ¾" pin spacing, pin diameter ⅛", with metal nameplate, waterproof assembly. All quartz plates used in this holder are pressure mounted between stainless steel electrodes and will stand maximum vibration.





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